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Manufacturers' Record.

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BALTIMORE, JUNE 7, 1906.

ARTHUR P. GORMAN.

We know of no man in public life whom the country could less afford to lose at this juncture than Arthur P. Gorman. Well-balanced judgment, experience in legislation, ability to recognize that measures ideal in theory may be disastrous in practice, and wise conservatism in dealing with questions appearing in new forms, though essentially old, are just the qualities most called for now in the national Congress, where for many years as United States Senator from Maryland Mr. Gorman had been a conspicuous figure and had rendered signal service to his country by the exercise of such gifts. There was nothing of the spectacular about Mr. Gorman. There was little of the artificial. He was largely a self-made man of strong native traits, which he utilized to the utmost in self-advancement and which were thoroughly appreciated by other great men whenever there was occasion for a safe and sane leadership in the Senate, a leadership not merely looking to the things of the present, but comprehending distant consequences. The Senate will miss his common-sense counsels and his wonderful skill in boding men to his purposes. His native State will miss the services of one who did it honor in the national legislature. The South will treasure the grateful memory of one who stood by it manfully in an hour of dire necessity. The country will feel the loss of one of its really great and valuable citizens.

TRYING FOREIGN LABOR.

The Alabama Consolidated Coal & Iron Co. is another of the iron-manufacturing com-

panies in this district that is supplanting negro with foreign white labor, and while a great many of the foreigners have not yet been brought to Gadsden by reason of the company's carefulness in making selections, those that are here are proving satisfactory. Some Poles and Germans have already been put to work at the local furnaces, and it is said that their work is satisfactory. It is understood that the company is selecting the best element of these foreigners.

A number of Italians and Mexicans are being tried in the mines at Crisp and Atlanta, and the Southern Steel Co. is trying Poles at the steel works. Negro labor has become so worthless in this district that it will of necessity be supplanted by foreign immigrants.—*Gadsden (Ala.) Times*.

From all over the South the same report comes as to the deterioration of negro labor and the absolute necessity of bringing in a sufficient number of foreigners to meet the pressing needs of the hour.

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Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 86, 87 and 88.
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READING ADVERTISING PAGES.

John F. Cox, mayor of Lakeland, Fla., in a letter to the MANUFACTURERS' RECORD under date of May 29 says:

The information that I have gained from reading the ads. in the MANUFACTURERS' RECORD is worth more than the subscription price for a whole year. You are doing good work for the South.

We welcome Mr. Cox to the ranks of the readers of the MANUFACTURERS' RECORD who find its advertising pages of so much interest and value. As recently said, a man who wants real information about almost anything that relates to business possibilities can find it in the 75 to 100 advertising pages of this paper. These pages constitute a great medium of communication between buyer and seller. To the seller they are invaluable if he wants to dispose of his machinery, his water-power, his timber property, his factory sites or the skill of his trained experience and his knowledge of how to do things, whether the doing of things means the planning of a mill, the building of water-works or the building of anything where technical knowledge is required. To the buyer these advertising pages are equally as important. If he wants any line of machinery made by any one of a thousand or more of the foremost concerns of America; if he wants the highest technical skill in engineering or in accounting; if he wants to make investments or to know where to find investors; if he wants to secure a location for factories or a water-power, the materials for building a railroad or a saw-mill; if he wants the relative value of different building materials; if he is thinking about investments in coal or timber or other mineral properties, he can find all of these things in our advertising pages.

The dictionary and the encyclopedia are no more essential to the student or to the man who wants to know things and know them right than are the advertising pages of the MANUFACTURERS'

RECORD to the tens of thousands of people not only in the South, but elsewhere, who at times have occasion to look for just the things covered in our advertising columns. It matters not what you may want to buy in the way of machinery or equipment or supplies or technical skill or timber or mineral properties, if you cannot find what you are after in these pages write to the MANUFACTURERS' RECORD and we will put you in touch without cost with the people who can provide what you want. This point is illustrated by a letter from the Electric Manufacturing & Equipment Co. of Atlanta, who write us:

We would be pleased to be put in touch with parties in position to furnish blue Vermont marble and switchboard panels finished to size.

Here is a case in which the exact thing that was wanted was not found in our advertising columns, and so the Electric Manufacturing & Equipment Co. wrote to know if the MANUFACTURERS' RECORD could put them in touch with the right people. This we did, and to any of our readers, whether subscribers or not, we are at all times glad to furnish information of this character, bringing their wants to the attention of those who can supply them, and this, too, of course, purely as a matter of news, without any cost for doing it.

Get in the habit of studying these ever-interesting and ever-changing pages and of following the old advice of the storekeeper—"If you don't see what you want, ask for it."

SOUTHERN JUNEBUGS.

How long is the country to continue to be wearied with what, for the want of a better term, may be called the annual flight of Southern junebugs. Last year it took the form of the "Southern Industrial Parliament," engineered from abroad through Washington, but compelled to return to its burrowing route. This year it was called the "Southern States Immigration Commission." Its advance notices had all the usual familiar earmarks—delegates appointed by the governors of the Southern States, said governors being apparently regarded as dead-easies, and representatives of Southern municipalities, railroads, leading industries and philanthropic associations. Being as the meeting was to be held in New York, the name of Oscar S. Straus, of course, had to be used. And 50 or 60 delegates were expected to be present.

What happened?

The proceedings revealed the presence of at least three gentlemen representing some organization in a Southern city, at least two residents of New York city among the six or eight alleged gubernatorial delegates, and "about a dozen representing municipalities and railway and steamboat lines"—about 20 in all. Among the most prominent participants was the Rev. Dr. Thomas R. Slicer, who opened the meeting and who is recognized far and wide wherever the South is mentioned as one of the most prominent workers

in the world for Southern material and ethical advancement. His theme seems to have been that the problem was to get the people from the congested centers like New York, where he, himself, has lived for quite a number of years. Another was the equally eminent Southerner, Rabbi Joseph Silverman of the Temple Emanu-El of New York city, who urged, from the standpoint doubtless of intimate and sympathetic knowledge, that relief for New York city was to help the distribution to other parts of the country of an enormous unassimilated foreign population.

A note of sound common sense was given in the statement of the Chattanooga delegate: "This is as clear as mud. I don't believe one-fourth of the men here understand what it's all about."

A clue to what it was all about was given in the discussion of the question of initiation fees. To the best of our knowledge and belief there has not been within the past 10 years any such impromptu movement calling itself "Southern" that has not had at the bottom the idea of initiation fees to pay the salary or other expenses of some enterprising individual who was really the germinal factor of the whole thing.

The junebug is a beautiful thing in its green iridescence. Some ears may be long enough to detect music in its buzzings. But what's its use? It's not even humorous.

HYSERICS IN LEGISLATION.

Congressman Wadsworth of New York, referring to the characteristic efforts to stampede an administration measure through Congress, is reported as saying:

I do not believe the hysterical condition that seems to prevail now should be permitted to control the determination of this important matter, and it will not control it. A bill that will give fair play to the cattle-raiser, the packer and the consumer will be prepared and passed.

It is hoped that Congressman Wadsworth may be able to make good his promise. Under the auspices of the administrative branch of the government public hysteria has been sedulously cultivated for quite a while. It is about time for the legislative branch to give the country assurance that hysterics in government shall not be permitted to prevail any longer. There is no public ill too great to be met and settled satisfactorily by sanity and deliberation. There is no public ill so small that it will not be accentuated by an attempted settlement based upon hysteria.

UNFAIR TO VIRGINIA.

Describing this year's annual advertisement of the New York establishment of John Wanamaker through the swing of the Ogden "educational" train in the South, a writer in the New York Tribune says:

A little incident which occurred on the last day of this year's conference, which was held at Lexington, Ky., indicates what Mr. Ogden's guests think of him as a host. A reception was held in one of the Lexington homes. A

New York woman, a member of the party, rose in her place and, turning toward Mr. Ogden, said: "In Virginia it would be quite understood that no blasphemy was intended if I said that upon this trip we have been permitted to meet 'the lord of hosts.'"

Mr. Robert C. Ogden is described in the same article as "uplifting the South" and also as "president of the board of trustees of Hampton Institute, president of the General Education Board, president of the Southern Education Board, president of the Conference for Education in the South, a trustee of Tuskegee Institute and head of the New York store of John Wanamaker." But in spite of this remarkable mix-up of educational notions and dry goods notions, and in spite of the courtesy extended by Virginia to the Ogden crowd on more than one occasion, it is difficult to see what justification there can be for the statement that in Virginia it would be quite understood that no blasphemy was intended in calling Mr. Ogden "the lord of hosts."

FOOL "SOUTHERN IMMIGRATION" CONVENTIONS.

How long, oh, how long, is the South to be made the laughing-stock of the business world by immigration conventions, congresses, parliaments or conferences? How long is the real immigration work of the South to be embarrassed by dreamers or ambitious ones who appeal to a few Southern governors and still fewer boards of trade, and induce them to appoint delegates or commissioners to these fool conventions? Is it not about time for the business people of the South to take hold of this important situation and begin some real work for immigration, in place of the "hot-air" talk of conventions, of which the country has had a surfeit? In this day it seems possible for anybody who simply tacks the name "Southern" to a call for a convention to get a few delegates appointed, and then successfully "work" the daily press and the press associations. Instead of doing good, such fizzles do harm. In the minds of serious and thoughtful business people they cause the South to be looked upon as a land full of "hot-air" theories and "hot-air" orators instead of a country deeply in earnest about the immigration question. A "Southern" immigration convention is in itself an absurdity. The immigration which Texas wants may be entirely different from the immigration which West Virginia or Kentucky or Tennessee or Alabama desires. Louisiana and Mississippi may be willing and anxious to secure one class of population. Virginia may want another. The only proper way and the only way calculated to produce real results is for each Southern State to organize its own immigration department and depend upon itself alone. When the business men of the South come to a full realization of this they will see the absurdity of these "Southern" immigration conventions and will insist upon each State spending whatever money is necessary to turn the tide of population that way. When the iron and coal men of Alabama get really desperately in earnest they will stop the local jealousies which have prevented any serious combination of these interests to secure immigration and they will join with other business men of the State in forcing the State administration to take up immigration work on a broad scale. When the cotton-mill people of the Carolinas have fully realized the imperative necessity of increasing the supply of labor they will stop beguiling (or, as millowners call it, "stealing")

operatives from each other, and will get together and compel their States to undertake immigration work on a scale sufficiently broad and backed by sufficient money to insure its success. So long as the South wastes its energies in "hot-air" talk at so-called immigration conventions the real work of Southern immigration will be halted. Once in a while some sensible business man is by accident appointed as a delegate to these conventions, but he is apt to feel very lonely, for he finds himself among people whose chief delight is in the opportunity of hearing themselves talk and who are filled with pride at the thought of being reported as "a duly-appointed delegate to a convention." The Galveston *Tribune*, commenting on the editorial in a recent issue of the MANUFACTURERS' RECORD about the need of immigration to the South, says:

The way to secure this business is not by holding conventions, listening to eloquent speeches and beautiful word-paintings, but in this matter, which affects the Commonwealth more vitally than it does any single individual or combination within the limits of the State, it naturally becomes a matter for the consideration of the State itself, and with the exhibit of profits shown by the transaction it would seem that the State can well afford to manifest some financial interest in the matter.

Each State must do this work for itself, and the men who must take hold of it and lead in it are not the politicians, not the men looking for a soft job, not the men who are always trying to float into some position on every new wave of development, but the business men—the manufacturers, the merchants, the planters—men who are employing from a few hundred to many thousands of hands and whose profits would be many thousands of dollars greater than they are if they could only secure a sufficient supply of labor. Here and there individual concerns in the South are at work for themselves providing what can be done and are bringing in immigrants in batches of 25 and 50 and 100. In this they are setting a good example to everybody else, but the work must be on a broader scale. While the individual concerns must continue what they are doing, others must cooperate. The State must join forces, and by liberal expenditure, not of a few paltry thousands a year, but of \$50,000 to \$100,000 a year if needed, the work must be done.

TAXING RAW MATERIALS.

At the "tariff-reform dinner" in this city on Saturday night ex-Governor Douglas of Massachusetts, speaking presumably for the manufacturers of New England, said: "The specific duties that we want removed at the earliest possible moment, those that constitute the minimum that will satisfy us and that we will continue to demand from Congress, are the duties on hides, sole leather, coal, iron ore, lumber and wood pulp."—*New York Journal of Commerce*.

Now watch for many Southern papers and Southern politicians joining in New England's cry for tariff reform via the "free-raw-material" road. It is true that this road would mean Southern impoverishment for the benefit of New England, but what matters that to the true Southern tariff reformer, who would prefer to see his section in the nether world of poverty if it got there via free trade rather than enjoying unbounded prosperity through protection. And then the cry for "free raw materials"! How sweet that sounds to these Southern tariff reformers. What matters it that "free raw materials" means taking the duty off of coal and iron and iron ore, lumber and nearly everything else that the South produces for the ex-

press benefit of others who use these "raw materials" for the manufacture of things which the South must buy. "Free trade on all that the South produces and 30 to 40 per cent. protection to the makers of all the South must buy," or, in other words, a handicap of 30 to 40 per cent. against the South, was the substance of the original Wilson tariff bill, and how the Southern politicians did hurrah for such an effort to destroy their own section. Once more the "tariff-reform" idea has been incubating with the same end in view. Many and devious are the ways that are being worked to bring about a demand for tariff revision, the real intent being carefully hid in the background, but that intent is simply to secure free raw materials at the expense of the South. And judging by the past, the people who are doing this work expect to see many Southern papers and politicians play the sucker act as heretofore.

PUTTING "LIFE INTO THE WORK."

At the annual banquet given by E. C. Atkins & Co. of Indianapolis to their 1100 employees the interesting fact was brought out that of the 75 men who were on the payroll of this firm 20 years ago, 62 sat down to the banquet table last week. The development of this industry from its payroll of 75 men to that of 1100 men within 20 years, and the fact that of this first 75, 62 were at the banquet board, are both matters of more than usual interest. But it is not of either that we would write just now. The things that impress us most as we read the story of that banquet and of the history of that company are some facts brought out in the life of one man, William Miller, a 70-year-old saw-polisher, who for 41 years has been working for that company. The Indianapolis *Star* in an interesting story of Mr. Miller and his work says:

The secret of his success in life is his joy in doing good work. * * * It is something to have given saws the brightest polish ever known in the history of the world.

And then, after detailing the efforts which Mr. Miller, in connection with Mr. Atkins, made to develop saw-polishing, the *Star* quotes Mr. Miller as saying:

I will show you how I polish the prize-winners (referring to the prize saws exhibited at various world's fairs). I did not have any handle to my block. I had a longer block than this, and pressed against it with my own body. In this way I could feel what was going on in that saw. I could get the touch, and somehow my life went into the work. It was hard, but there is some satisfaction in doing the thing right, just exactly right, and a little bit better than anyone else could do it.

There is the foundation on which every successful life must be built. Into his work every man who accomplishes must feel "somehow my life went into the work." The man who does not feel that has not yet accomplished much for himself or for the world's betterment, and the man who does put something of his very life into his work is the man who generally does the thing "just exactly right and a little bit better than anyone else could do it." This hardy, 70-year-old mechanic, still, as described by the *Star*, "hale and hearty, with muscles as strong as most young men, with a clear mind and an enthusiasm for his work," has preached a sermon that ought to be heralded in every school—in every family of the land. It is a sermon which takes hold of the very essentials of life. Success in manhood, as well as success

in material accomplishments, the joy of doing good work, the satisfaction that comes in doing it so well that you are in touch with the very machine that you are handling, and into that machine you are putting your life and through it are doing the work "a little bit better than anybody else has done," are within the grasp of every boy and every man who puts into his life-work the spirit which Mr. Miller has shown in the 40 years of polishing saws. To him there has come a satisfaction, a pride in his work and a credit well worth emulation. If Atkins & Co. have developed around them many other characters such as this, their growth in 20 years from a small and but little known concern with only 75 men to their present rank as one of the leading enterprises of the country with a payroll of 1100 is easily understood, and to have developed such characters around them is more to be commended than the creation of the wealth which has come out of their great industry. It is well worth while for every business concern to make a study of what has been the life-policy of this sturdy saw-polisher and see if they cannot build up around them men whose noblest ambition will be to do their work "a little bit better than anybody else," for that means they have builded their character with a view to making it "a little bit better than anybody else's."

RALPH A. HELLIER.

The death of Ralph A. Hellier at Pikeville, Ky., means the loss of a leader in the development of a portion of Kentucky richly endowed by nature, but until within the last few years practically cut off from close touch with the energies of the modern world. A native of Maine, Mr. Hellier spent the last 12 of the 35 years of his life in Pike county, Kentucky, where he was interested in the purchase and development of coal lands in the rich Elkhorn field. There he administered successfully interests representing millions of dollars, and largely through his efforts the Chesapeake & Ohio Railroad was induced to extend its line a hundred miles up the Big Sandy valley, thus bringing a sturdy population of 30,000 and vast mineral and timber resources within range of the rest of the country's progress. He had become thoroughly identified with the activities of his adopted home, and was mayor of Pikeville.

FOR COTTON-GROWERS.

With President Harvie Jordan as editor-in-chief and Secretary Richard Cheatham as business manager, the *Cotton Journal*, which will be regarded as representing the Southern Cotton Association, has entered upon its career. It is published at Atlanta, Ga., but will cover the whole cotton belt in the interest especially of the cotton-growers. Its first issues demonstrate that it will be of value to many Southern interests and deserving of substantial support.

NASHVILLE.

A folder issued by the Board of Trade of Nashville, Tenn., shows that in manufacturing during the past five years there has been an increase from 237 to 263 in the number of establishments, from 6726 to 8435 in the number of wage-earners, from \$11,873,734 to \$16,463,238 in capital, and from \$15,301,096 to \$23,109,601 in value of products. In the 18 square miles of its area there is a population of 164,742, and the combined capital, surplus and deposits of its banks amount to more than \$25,000,000, the clearings during the past five years increasing from \$74,000,000 to \$160,153,955. New corporations of 1905 represented more than

\$14,000,000, and \$2,539,136 represented the value of buildings for which permits were obtained in that year. In the first three months of this year building permits representing \$1,252,688 have been issued, and the city is spending more than \$500,000 for permanent street improvements. It has 76 miles of electric street railway. These are a few of the facts indicating the opportunities for brain, muscle and money capital at Nashville.

MOBILE.

In a pamphlet on the advantages of Mobile, Ala., the Commercial Club of that city suggests, among the industries that might be established there, woodworking establishments, such as saw-mills, furniture, barrel, sash, door and blind, wagon, box and hardwood specialty factories, basket factories, plants for making cotton cloth, cotton yarn, cordage, knit goods, agricultural implements, cigars and cheroots and fertilizers, canning factories, cement works, a pottery and a shipbuilding plant. The city is growing in importance as a lumber-trade center, both domestic and foreign, there being within the Mobile district proper 30 saw-mills with an aggregate daily cutting capacity of 4,150,000 feet and representing an investment of \$12,000,000, and the value of exports of timber, unmanufactured wood and manufactured lumber last year being \$3,394,153. That amount was something more than a seventh of the total commerce of the port for that year, \$22,325,820. The city is Alabama's only seaport, with a steamboat system plying upon the waters of 2000 miles of navigable streams and with five lines of steam railroads. Its streets are paved with asphalt in the business district, the city owns its own water-works and sewerage system, and 50 miles of its streets are traversed by electric-car lines. The city has eight banks with a combined capital and surplus of more than \$3,385,000, two cotton mills, two breweries, six ice plants and other industries. It is a large importer of tropical fruits and fine hardwoods, and is in close touch through steamers and sailing vessels with the West Indies and Central America.

Building at Joplin.

[Special Cor. Manufacturers' Record.]

Joplin, Mo., June 2.

Indicative of activities in this city are the contract let by Thomas Connor to Deiter & Wenzel of Joplin for a nine-story hotel to cost \$350,000, the completion of a building by Fred M. Davis in which he will install machinery for the manufacture of woodenware novelties, the application by D. K. Wenrich and W. H. Smith for a franchise to build an electric line on seven miles of Joplin streets, and the organization by L. E. Lindsay and others of a company to manufacture lime from stone found on Shoal creek just south of Joplin. The Commercial Club of Joplin has a proposition from G. C. Kellogg of Carthage looking to the organization of a \$25,000 company to make monuments from native stones. **L. M. DAVIS.**

The Carolina Land & Lumber Co. of Moyock, N. C., desires to get in touch with immigrants to take the place of negroes becoming daily more and more unsatisfactory.

A committee of the South Carolina Agricultural Society has issued a call for a convention June 20 of the coast counties of the State to further plans for a thorough drainage of that territory.

The Alabama Commercial and Industrial Association, Mr. A. G. Forbes, president, and Mr. L. L. Gilbert of Montgomery, secretary, is to meet at Gadsden June 27-28.

Cotton-Oil Mills and Denatured Alcohol.

[Written for the Manufacturers' Record.]

Removal of the tax from denatured, that is, non-potable alcohol, full of beneficial potentialities for farmers and manufacturers, the great producing classes of the country, contains, it seems, an economic possibility appealing directly and strongly to the South. One of the embarrassments of the cottonseed-oil industry, with its 800 establishments, its 20,000 employees and its \$100,000,000 capital, is the fact that the cottonseed-crushing season lasts but a portion of the year, and ordinarily much valuable machinery must lie idle and deteriorate sometimes for six or even seven months, while the available labor must necessarily shift to other lines and thus become more or less demoralized and dependable. Such a situation implies a definite amount of waste in labor energy and a positive loss upon the investment in the plants. Solution of the difficulty upon an apparently practical and feasible basis has been made through the Board of Trade of Little Rock, Ark., by Mr. J. A. Spurlin, its official chemist. In a circular-letter to the cotton-oil-mill men Mr. Spurlin finds in tax-free denatured alcohol a means not only of utilizing the equipment of cottonseed-oil plants during the whole year, the manufacture of alcohol succeeding the crushing of the seed, but also of making the industry a dominant factor in the packing trade. He says:

"It is a fact that twice the quantity of alcohol can be secured from an acre of potatoes as can be obtained from an acre of corn. And here lies the crux of the situation. The residue can be fed equally as well to hogs. You have twice as much of it to the acre, and while the residue is not suitable for cattle feed, you may have here the solution to the mixing of cottonseed meal as a food for hogs. Of course, this will have to be tried. I will state that it is possible to produce 285 gallons of the alcohol from an acre of potatoes. You will not have to erect a new plant, as the mill you have is sufficient for all power purposes. In addition to all else, this State is a great potato-producing country, and by fostering this enterprise you will also help build up the fertilizer business. Cottonseed meal is the best potato fertilizer on the market."

Mr. Spurlin's arguments have reinforcement in statements made by authorities who have given special attention to the subject. Hon. James Wilson, Secretary of the Department of Agriculture, in a hearing on the bill to make alcohol tax-free for industrial purposes, said that the plants containing starch or sugar are and will continue to be the chief sources of alcohol, and that those which may be advantageously utilized for the purpose in this country are the white potato, the sweet potato, the yam, the cassava plant, beside waste molasses from sugar-cane and sugar-beets and the waste product from the stalks of corn at the time of the hardening of the grain. The possibilities of expansion in the industry of deriving alcohol from such sources were set forth by Secretary Wilson as follows:

"An acre of land which produces 50 bushels of corn, nearly 2800 pounds, will furnish 1960 pounds of fermentable matter; that is, starch and sugar together. Forty-five per cent. of this will be obtained as absolute alcohol, namely, 882 pounds. A gallon of absolute alcohol weighs 6.8 pounds; therefore, an acre of corn would produce about 130 gallons of absolute alcohol. Commercial alcohol is about 95 per cent. pure, so that approximately an acre of Indian corn producing 50 bushels would make about 140 gallons of commercial alcohol."

"If we assume the average crop of potatoes to be 300 bushels, or 18,000 pounds, it would produce 3600 pounds of fermentable matter, since the potato contains an average of 20 per cent. of this material. This would produce 1620 pounds of absolute alcohol, or about 255 gallons of commercial alcohol, showing that an acre of potatoes produces much more alcohol than an acre of corn.

"But there is another consideration with regard to the potato as a source of alcohol. We raise potatoes for human food and for scarcely any other purpose. We plant the potato that has the finest flavor for the table, independent of its yield per acre. Were we raising potatoes for the purpose of making alcohol these considerations would not be regarded. The variety of potato that would give the largest yield per acre would be planted. Where potatoes are used as cattle food, as they are in many foreign countries, varieties of this kind are resorted to, and there would be no difficulty whatever in doubling the 255 gallons per acre receivable from the present average yield of potatoes. So that it would be within bounds to say that 500 gallons of alcohol can be had from an acre of potatoes.

"Potatoes, moreover, are a commercial crop only when within a certain distance of market. At the average price at which the potato sells it can be hauled only a short distance, but when looking to it as a source of heating and lighting, factories would be erected in country neighborhoods and the potato would then be grown for its largest possible yield of alcohol. The sweet potato and the yam contain about the same quantity of fermentable matter and would yield equivalent quantities of alcohol.

"So, looking at this subject from the agricultural standpoint, we find that the Northern States could readily depend upon the white potato as a source of heat and light, the Southern States upon the yam and the sweet potato, and the Western States upon the sugar-beet. The extensive irrigation projects now being carried on by the United States government will result in watering lands that will produce sugar-beets more profitably, perhaps, than any other crop. The molasses can be readily turned into alcohol.

"The stalks of Indian corn, at the time when the grain is sufficiently hardened to be perfectly sound, when harvested contain a large quantity of starch. If the stalks of Indian corn could be utilized at that time for the manufacture of alcohol they would produce a quantity which would be almost incredibly large. There would be approximately 10 tons of stalks to the acre of Indian corn yielding 50 bushels the acre, or 20,000 pounds, and of this at least 12 per cent., or nearly 2400 pounds, is fermentable matter, 45 per cent. of which can be recovered as alcohol, equivalent to 1080 pounds of absolute alcohol, or approximately 170 gallons of commercial alcohol. The average yield of Indian corn is only about one-half the above, but the heavier corn lands of the country that would be used for growing corn for alcohol average easily 50 bushels to the acre. It is safe to say that the average amount of sugar and starch which goes to waste in the stalks of Indian corn annually would make 100 gallons of commercial alcohol per acre. When we consider the vast number of acres cultivated in Indian corn, approximately 100,000,000, it is seen that the quantity of alcohol that is lost in the stalks is so large as to be almost beyond the grasp of our conception."

Another student of the situation, Mr. Nahum Bachelder, representing a large national organization of farmers, argued that even with the price of alcohol at twice that of kerosene—by no means a certainty—the alcohol light is cheaper, more brilliant and more steady, and at the same time free from disagreeable odors, clean and absolutely safe, and that as a motor fuel for internal-combustion engines, which are coming into more and more general use in farming operations and about the farm home, alcohol, under the new arrangement, will be eagerly used in wide stretches of the country where the price of gasoline has become almost prohibitive, even if alcohol be not found more desirable than gasoline in other parts of the country. Mr. Bachelder pointed out, moreover, that availability of the cleaner and safer but equally valuable alcohol for cooking and heating purposes by the removal of the tax would lead to its use by hundreds of thousands of farmers and others, and he said:

"From what I have stated it is plainly manifest that the removal of the tax from denatured alcohol would at once create an enormous demand for that material. For lighting, motor fuel and household purposes alone there should be a demand for at least 100,000,000 gallons of alcohol in the near future, and with the steady increase in the use of the farm engine and the alcohol lamp the quantity used for these purposes would soon greatly exceed this great amount. This would mean a very large additional domestic market for corn, potatoes, sorghum, beet sugar, molasses and other farm products from which alcohol can be distilled, with consequent direct benefits to the agricultural interests of the country."

It is, therefore, obvious that from the farmers' standpoint the removal of the tax from ethyl alcohol, which is to be used for industrial purposes, will be most advantageous both in largely increasing the markets for farmers' products and in giving farmers a safe and cheap material for fuel, for lighting and for power.

The fuel side of the problem is that appealing most strongly to the manufacturers. Economic use for denatured ethyl alcohol derived from grain, potatoes and other vegetables will be found in the manufacture of aniline colors and dyes, hats (stiff, silk and straw), electrical apparatus, transparent soap, furniture, picture moldings, burial caskets, cabinet-work, passenger cars, pianos, organs, whips, toys, rattan goods, lead pencils, brushes, wagons, boots and shoes, smokeless powder, fulminate of mercury, brass beds, gas and electric-light fixtures, various kinds of metal hardware, incandescent mantles, photographic materials, celluloid and other like compounds, sulphuric ether and organic chemicals.

To be sure, the use of denatured ethyl alcohol would largely displace that of wood alcohol in these lines, but as wood alcohol is one of the most efficient denaturizing elements for ethyl alcohol, it is believed that the widely-expanded use of the latter in industry would really bring about a greater demand for wood alcohol, which is, after all, regarded by many persons as a by-product of industry, though an important one.

It is believed that the vastly greater freedom in the use of alcohol through the removal of the tax will result in a tremendous impetus to one of the youngest but flourishing industries in the country, the manufacture of motor cars, used for pleasure or in commerce, as independent vehicles on the highways or as auxiliaries to steam transportation. For it is to be reasonably expected that with alcohol fuel available in great quantities the use of motor cars will become more general.

These advantages have been more or less

widely discussed pending the passage of the free-alcohol bill. They are concerned principally with increasing the efficiency and the profits of existing industries. The suggestion that, at slight if at any additional investment, the plants of cotton-seed-oil mills may, out of the crushing season, become alcohol factories opens up a wide field of possibilities worthy of careful investigation by experts. At least a dozen great industries of the country today are based upon material which in the comparatively recent past was re-

garded as waste. The suggestion as to cottonseed-oil mills in connection with the manufacture of alcohol points to a saving of waste in the investment for machinery, in labor and in material. If it can be carried out it will mean full and profitable use of the machinery, steady work all the year for even a greater number of employees than are now engaged for four, five or six months around the oil mills, a call for enlarged culture of a number of crops in the South and a bigger stock of feeding stuffs for animals demanded by the growing packing-house.

generation at least, have been piped into Charleston, and natural gas is now extensively used not only for domestic purposes, but as well for manufacturing purposes, at very low rates, especially for manufacturing purposes. Mr. W. A. Kelly, president of the great Kelly Axe Manufacturing Co., which is now located in Charleston, is authority for the statement that the natural-gas production here is of the very finest quality for heating and tempering purposes.

Charleston is in the heart of a section rich in the great raw material of lumber, as is attested by the number of lumber industries which dot the banks of the Elk river, along which the city stretches. This river brings out the timber from the great forests along its upper course. Not only is much of this timber manufactured into lumber here in Charleston and shipped, but some of it is here manufactured into furniture and the like. White oak and poplar are among the timbers most abundantly found here. Hickory in some localities is reasonably plentiful. With reference to prices, the following are furnished by one of the most extensive lumber dealers in this section: Standing oak timber is worth from \$2 to \$8 per acre in the Kanawha district at present, according to its stand, quality and location; standing poplar timber, from \$5 to \$15; oak lumber, 1s and 2s, plain, from \$35 to \$39 per 1000 feet, varying in price with the quality of manufacture; commons, from \$25 to \$28; shipping cull, from \$14 to \$16. These prices are f. o. b. mill. 1s and 2s poplar, of medium widths, are worth from \$38 to \$44; commons, from \$26 to \$30; shipping cull, from \$15 to \$19.

The great advantages of Charleston from the industrial points of view are: First, coal; second, natural gas; third, lumber; fourth, water transportation. Charleston is in the heart of one of the greatest coal fields in the country, the Kanawha, and at the very door of the great New River coal field. The aggregate area of these two coal fields is stated in a recent publication by one well posted to be 840 square miles, or 540,000 acres. "Within their boundary lines," it is added, "a greater variety of coals are produced and a greater number of coal seams are being mined than have ever been found elsewhere in the world in a territory of similar size." Eleven distinct seams have been opened up on a commercial scale as follows:

Kanawha Series—No. 5 or block, Belmont, Coalburg, Winifrede, Cedar Grove, No. 2 or gas, Powellton, No. 1 or Eagle, New River Series—Sewell, Beckley, Fire Creek.

These coals, it is stated, "are uniformly low in ash and sulphur, and cover every known requirement on the part of the consumer, whether for domestic use, blacksmithing, coke ovens, by-product plants, gas-making or the generation of steam."

According to the last report of the State mine inspector of West Virginia, there are now in operation in the Kanawha and New River coal fields 261 mines. All of these mines are within a radius of about 60 miles from Charleston by rail, and as to many of those in the Kanawha field the product can be put into Charleston by water practically the year round. The following are furnished as average prices of coal delivered in Charleston in carload quantities: Run of mine, from \$1.25 to \$1.35 per ton; nut and slack, from 90 cents to \$1 per ton. By water prices are about 25 cents less than by rail.

Charleston has been enjoying the great comfort of natural gas for domestic purposes, and to a limited extent for manufacturing purposes, for a number of years. The well of which this gas is the product, situated about 14 miles east of Charleston, is still producing, with no present symptom of failure. But within the past few years the products of several great untouched gas fields, which promise to last for a

Charleston the Kanawha & West Virginia Railroad, which will traverse great untouched coal fields in counties on the east of Charleston. Additional shipping facilities promise to be available in the near future by means of the extension of the Deepwater-Tidewater Railroad, now under contract, running from Pool No. 1 of the Kanawha river through the coal measures of the Kanawha and New River districts to Bluestone, connecting with the Norfolk & Western, and thence to Hampton Roads, with probable connections with other Southern points. The Kanawha & Coal River Railroad, having its present terminus at St. Albans, about 12 miles below Charleston, and the Cabin Creek branch of the Chesapeake & Ohio are also valuable feeders to Charleston.

So much for those features to which the inquiries of the manufacturer would be first directed. Now as to some incidental facts which are likely to be the subject of inquiry. In the matter of climate, the protecting hills of the little valley in which Charleston lies shield it from the undue violence of wind and cold in winter, while in the midst of summer these same conditions serve to render the nights pleasant.

In the way of miscellaneous statistics it is pointed out that the total receipts for the Charleston postoffice for the year ending March, 1906, were \$18,922. The local tonnage for purely local shipments out of Charleston by rail for one month, March, 1906, was 19,058,299. It is calculated that the sum expended on the erection of new buildings for the year ending March, 1906, was not less than \$800,000. Charleston has not less than 30 wholesale and jobbing houses, which include groceries, dry goods, notions, shoes, hardware, candies, drugs, etc. A conservative estimate of the amount of business done by these houses during the year 1905 is declared to be not less than \$13,000,000.

Among the leading manufacturing industries of Charleston at this time are the Kelly Axe Manufacturing Co., manufacturer of axes, scythes, etc.; the Tanners & Dyers' Extract Co., of extracts; Ohio Valley Manufacturing Co., the W. W. Branch Veneer & Lumber Co., National Veneer Co., Morgan Company and Kanawha Hardwood Finishing Co., of furniture and the like; Kanawha Mine Car Co., of mine cars and mine car wheels; Ward Engineering Works, manufacturer of marine boilers, etc.; Southside Foundry and Machine Works, Vulcan Iron Works, Hall Machine Works and Charleston Boiler & Foundry Co., whose purposes are indicated by their names; Agnew Electric Co. and Charleston Electrical Co., manufacturers of electrical supplies; Gates Paint Manufacturing Co., of paints; Charleston Manufacturing Co., maker of overalls. In addition are the several manufacturers of lumber, among the largest of which are the Charleston Lumber Co. and the Yellow Pine Lumber Co.

Charleston has six banks—the Kanawha Valley, the Charleston National, the Kanawha National, the Citizens' National, the Kanawha Banking & Trust Co. and the Elk Banking Co. The aggregate capital, surplus and undivided profits of these six banks is about \$2,500,000; aggregate deposits, \$5,500,000; average daily clearances, from \$250,000 to \$300,000.

The pamphlet closes with several items of miscellaneous information, in which it is stated that rentals at this time, by reason of influx of population, are somewhat high, but many new dwellings are building; school facilities are among the best; the death-rate is very small; there are many churches, of nearly all denominations; street-car facilities are very good, and are being rapidly extended; there are three large hotels and numerous smaller ones.

ALBERT PHENIS.

West Virginia Capital's Industrial Advantages.

[Special Correspondence Manufacturers' Record.]

Charleston, W. Va., June 4.

In order to provide information about the conditions existing in Charleston and to meet the demands generally of the numerous inquiries which are being received by Mr. Charles Loeb, secretary of the Charleston Chamber of Commerce, a pamphlet has been compiled and is about to be issued by the Chamber of Commerce giving succinct information on such topics as are most frequently subjects of inquiry. These pamphlets are to be printed in attractive form, and are to be sent out by the Chamber of Commerce to all who may desire information about the advantages which Charleston offers to manufacturers.

I have been provided with advance sheets of this pamphlet, and have been permitted to make copious extracts from the publication. Conspicuously displayed is an extract from the speech of W. C. Kelly, president of the Kelly Axe Manufacturing Co., on the occasion of the breaking of ground for the Kelly plant at Charleston, June 12, 1904. This extract, which Charlestonians justly consider an encomium of the highest sort, is to this effect:

"As a manufacturer I would say to my brother manufacturers, you who are large consumers of coal and who are under heavy burdens of expense for fuel, come to Charleston. Here you will find enthroned in mighty hills and in deep valleys King Coal and Queen Gas, supreme monarchs of the world, inviting you hither."

The significance of this declaration lies in the fact that the Kelly Axe Factory, which is the largest and best equipped of its kind in existence, and produces fully one-half of the axes manufactured in the world, was removed from Alexandria, Ind., when natural gas played out in that field, and was located at Charleston only after the most exhaustive investigation by Mr. Kelly of the combined advantages to the manufacturer which is offered by any section of the United States.

From the subject-matter of the pamphlet the following extracts are taken:

Charleston is situated in Kanawha county, in the southern part of West Virginia (of which State it is the capital), on the north side of the Great Kanawha river, and on both the east and west sides of the Elk river, which empties into the Kanawha at this point. It is in latitude 38° 20'. The city proper stretches for a distance of about three miles along the Kanawha river and for about a half mile along both banks of the Elk. Looking both to north and south are beautiful low-lying hills, constituting one of the most picturesque views to be seen anywhere. These hills on both sides of the Kanawha are now rapidly building up into suburban residence sites. Not only are they things of beauty, but they serve effectively to protect the city from the violence of storm and wind.

Charleston is nearly a score of years more than a century old, but within the

Southern Young Men Training for Agriculture.

By PROF. ANDREW M. SOULE, Dean of the Virginia College of Agriculture.

[Written for the Manufacturers' Record.]

Those who are familiar with agricultural conditions in the South realize that the greatest problem requiring solution at the present time is the improvement of our landed areas and the permanent maintenance of soil fertility. On the consummation of this most desirable end rests the future status of the South as an agricultural country. Industrial development has gone forward with tremendous strides in the last few years, and the natural resources of the country are being exploited, and this process will continue for many years to come. But our landed areas, because of exhaustion through the continual growth of crops like cotton, corn and tobacco and the neglect of live-stock industries, have in many instances reached a low ebb. This condition is a more serious one than some of us realize, and it is high time that efforts were being made to repair

on the farm is now generally appreciated and the need of agricultural education a recognized necessity. Educated leadership is therefore the slogan of the farmer of today, and in a practically virgin field, what greater opportunity can a young man wish for? Control of markets is an excellent thing, but very difficult of accomplishment. On the other hand, the cost of production can be minimized materially on many a farm crop, and the certainty of producing a crop, unless extreme climatic conditions intervene, can be increased 50 per cent. by the application of better methods of cultivation. It is surely a delightful and inspiring thing to learn that the young men of the South are realizing more fully than ever before the opportunity before them to become the leaders in agricultural thought and practice and to become an inspiration to their

ture and horticulture as a vocation is an evidence of the trend of public sentiment and indicates the widespread recognition of both the need and the value of agricultural education.

The names and addresses and future plans of these young men may be briefly indicated as follows:

Alfred Wilson Taylor, Knoxville, Knox county, Tennessee, expects to pursue technical work in agriculture.

John Walton Grandy, Jr., Norfolk, Norfolk county, Virginia, will follow horticultural pursuits.

James Hubert Broce, Blacksburg, Montgomery county, Virginia, will follow orcharding.

Edward Madison McCulloch, Bluefield, Mercer county, West Virginia, expects to pursue special work in agriculture.

Bernard G. Anderson, Farmville, Prince Edward county, Virginia, will follow experiment-station work.

Alfred Washington Drinkard, Jr., West Appomattox, Appomattox county, Virginia, will pursue advanced studies in horticulture.

all based on mines and manufacturing, but on the conservative cultivation of the soil. Does not this evidence of the growing interest in agricultural education and the winning of strong recruits to its ranks augur well for the future? A balance in educated effort is necessary, and the pendulum has swung possibly rather too much towards industrial lines for the permanent good of the mass of our population. Now there seems to be some prospect of an adjustment of the relation between educated effort in industrial pursuits and farming. The questions have been so frequently asked, Is not agricultural education a failure? What is the agricultural college of the State doing? Have they turned out any useful and practical men? Yes, these questions have been asked, and possibly with some reason, and though the fulfillment of the promises made in the beginning with regard to agricultural education has been overlong in some instances in consummation, they can now all be answered positively and affirmatively.

What the agricultural college of today needs, what the young men of the country need, is to be inspired with the nobleness of the vocation of farming; with its possibilities when conducted along skillful lines. What the people of the State need to learn is that agricultural education is a practical success; that it has passed the experimental stage and is now on a firmly-established basis. The people of the State also need to learn that agricultural education is expensive; that many of the failures in the past have been due to wrong impressions of what an education suitable for the farmer should be, and to the stinted sums doled out to those in charge of education and research work. No other type of education properly given calls for more elaborate equipment and more expensive apparatus than that of agriculture. Generous financial support and a helping hand are the chief needs of the future. "Knocking," to use a slang expression, should be relegated to the dark ages. Progress comes from united effort. The State's most permanent investment will follow when thousands of young men are educated to become the leaders in agricultural practice. There are two crops raised on the farm—those utilized for the maintenance of the human race directly and indirectly, and the crop of boys and girls. Much thought and labor has been expended on the raising of the former and still only a little has been achieved, but in the strife to establish dominion over vast areas of primeval territory the true education of the crop of boys and girls has sometimes been overlooked. Shall this be said of the future, or will the marvelous progress of the United States along all lines be marked by the education of a class of farmers superior in skill and intelligence to any the world has ever seen? Surely this is a consummation devoutly to be hoped for, for in its fructification lies the establishment and maintenance of the supremacy of the United States along both agricultural and industrial lines, for one cannot succeed without the other.



GRADUATES IN AGRICULTURE AND HORTICULTURE, VIRGINIA COLLEGE OF AGRICULTURE.

Standing—Left to right: A. W. Taylor, J. W. Grandy, Jr., J. H. Broce, E. M. McCulloch, B. G. Anderson, A. W. Drinkard, Jr., R. P. Cocke, W. L. Owen, W. B. Oglesby.

Sitting—Left to right: F. M. Humphrey, E. C. Turner, J. H. Squires, T. B. Hutcheson, R. T. Pratt.

the damage which careless culture has wrought and renew confidence in agricultural operations. This is necessary, that industrial development may go on uninterrupted, for the purchasing power of the country and the degree of confidence enjoyed in business depends on the prosperity of the agricultural community, and at the present time industrial development is making far greater progress in proportion than farming. It is no wonder, therefore, that unexampled opportunities are opening to young men in the South along agricultural lines. Everywhere there is evidence of the need of better methods of farm practice, more careful and rational tillage of the soil, the application of fertilizers adapted to the peculiar needs of the crop to which they are applied, and the adaptation and utilization of labor-saving machinery to supply in part the need of the vanishing negro laborer.

Do these things not call for leadership, and leadership of the highest type? Skill is at a premium in every business except that of agriculture, and it is gratifying to know that the highest type of intelligence

fathers and brothers who have not enjoyed equal privileges with them. It is a great pleasure, therefore, to record the growing interest in education that makes men both scientific and practical; that trains both the mind and the hand, and that teaches men how to overcome difficulties through the assistance of science that have been regarded as insurmountable for years and years.

That agriculture is a vocation commanding the respect and attention of our community is witnessed by the accompanying picture of the graduating class in agriculture and horticulture in the College of Agriculture, Virginia Polytechnic Institute, Blacksburg. These young men represent every section of the State, and are the scions of a distinguished ancestry, which of itself is a most encouraging sign of the times. We have every reason to feel proud of these young men, for they have distinguished themselves in every walk of college life and go forth into the world with abundant promise of giving a noble account of themselves in their chosen vocation. The mere fact that such a large number of men should be following agricul-

Randolph Preston Cocke, Bon Air, Chesterfield county, Virginia, will follow special work along agricultural lines.

William Ludwell Owen, Turberville, Halifax county, Virginia, expects to follow special work in agriculture.

William Bowen Oglesby, Draper, Pulaski county, Virginia, will follow post-graduate work in agriculture.

Frank Moore Humphrey, Paxson, Loudoun county, Virginia, will follow orcharding in Loudoun county.

Edward Carter Turner, The Plains, Fauquier county, Virginia, expects to follow low farming in his home community.

John Houston Squires, Charlotte, Mecklenburg county, North Carolina, expects to take up investigational work in agriculture.

Thomas Barksdale Hutcheson, Charlotte, Charlotte county, Virginia, expects to follow experiment-station work.

Richard Turner Pratt, Port Royal, Caroline county, Virginia, will pursue post-graduate studies in agriculture next year.

The wealth, the happiness and the permanent prosperity of the South are not

Another Portland Cement Plant.

The manufacture of Portland cement in the South will receive added impetus by the plant which it is announced Messrs. W. J. Oliver and W. W. Wallace of Knoxville, Tenn., and J. H. Bartlett of Middlesborough, Ky., will establish. Authoritative advices received by the MANUFACTURERS' RECORD are that this plant will represent an investment of approximately \$1,000,000, and it is to be located at Cumberland Gap, Tenn. The Tennessee Portland Cement Co. will be the corporate title, and plans are being arranged for organization. Details as to buildings and equipment have not been arranged, but it can be stated that the output will be

2000 barrels daily of high-grade Portland cement. About 2000 acres of land near Cumberland Gap have been purchased as site for the plant and to furnish the supply of cement stone. Mr. Wallace is the consulting engineer of the company. Messrs. W. J. Oliver & Co. of Knoxville, Tenn., can be addressed direct for further information.

BUILDERS' EXCHANGE EXHIBIT.

An Exposition of Materials Used in Construction.

The success of the Department of Permanent Exposition of the Builders' Exchange of Baltimore city is assured. The committee in charge have appointed the nights of June 11, 12 and 13 as the dates for the formal opening of the exposition. The night of June 11 will be known as "architects' night," and will be entirely devoted to the entertainment of the architects of Baltimore and the surrounding territory. Several speakers prominent among the architects of the country are expected to be present, among them Mr. Glenn Brown, secretary of the American Institute of Architects, of Washington, D. C.

The consideration of the establishment of a Department of Permanent Exposition has been a matter of great thought with the Builders' Exchange of Baltimore. The present committee was appointed in October, 1905, and immediately set about making arrangements for its inauguration. The committee visited different departments of this character that had achieved success, thoroughly investigating the conditions and methods, among which may be enumerated Cleveland, Pittsburgh and Philadelphia. Possessed of an energy that knew no such word as fail, they immediately arranged for the control of the whole upper floor of the Builders' Exchange Building, corner of Charles and Lexington streets, removing the partitions, producing a large well-lighted and well-ventilated hall; platforms were placed, and by January 1 they had secured the manager for the department, who, in turn, visited the various exhibits of the country and immediately set to work to organize along modern and progressive as well as aggressive lines a department which today occupies a position equal to any. In the development of this department an entirely new feature has been inaugurated in the inquiry or information bureau, whereby it is possible for the general public to take advantage of the information at the command of the department in locating everything or anything in the line of construction materials. This particular department has jumped into popularity to such a degree that during the past month it can report that 116 applications for information were handed over to exhibitors and 28 were satisfactorily answered, locating material which the department had not yet secured for exhibition. The result of this department is twofold—it is a convenience to the general public and it is also a satisfaction to the exhibitor, in that it places him in close touch with prospective buyers. The department has adopted a cold-blooded proposition of exhibit; no desks or solicitors are allowed; the exhibit becomes the silent salesman for the exhibitor. This policy on the part of the committee in charge of the department has produced great results in the elaboration of the exhibits tending to increase the interest of the visitor. Some doubt was expressed as to whether visitors would take the elevator to the fifth floor of a building to inspect exhibits, but the past month shows a registry of over 400 visitors to the department, and when it is understood that this enterprise is in its infancy; that its existence is not generally known, and that not one-half of the visitors to the department

register, it is safe to estimate that fully 800 people have visited the department in what may be termed the third month of its existence. The Department of Permanent Exposition must be the silent salesman for the exhibitor, and much depends for its success upon the inquiry department, which is a necessary adjunct. For the benefit of the general public the Builders' Exchange of Baltimore city has reason to congratulate itself upon the support which the department is receiving from the architects and builders. It is anticipated that by the date of the formal opening of the department on June 11 two-thirds of the space, which is the amount actually sold, will be covered with exhibits.

At the annual meeting of the Builders' Exchange this week the following officers were elected: President, Theodore F. Mortu; first vice-president, Theodore F. Krug; second vice-president, Joseph T. Lawton; third vice-president, Frank G. Boyd; secretary, Albert D. Klein of J. J. treasurer, B. F. Bennett; directors, Walter E. Burnham, John S. Bullock, Jr., A. J. Dietrich, Harvey Middleton, F. S. Chavannes, John K. How, J. E. Stanfield, H. H. Duker, C. F. Macklin, Frank G. Walsh, George W. Walther and Daniel A. Leonard.

To Advance Petersburg.

That every reasonable effort will be made to promote the industrial and general business advancement of Petersburg, Va., is evident in plans now being formulated for the organization of an association to succeed the present Chamber of Commerce. Petersburg manufacturers, merchants, financiers and other business men are active for this plan, and present the proposition in a booklet now being distributed. This publication tells the plan of organization of the Business and Credit Association of Petersburg, which will work for the general interests of the community, establish a recognized bureau of credits and further the interest of its members. As an adjunct to this will be formed the Petersburg Investment Corporation, with a capital stock of probably \$200,000. This investment company will assist in the enlargement of established enterprises and the organization of new enterprises by investing in those which need capital and shown to be acting entirely in good faith. The city of Petersburg undoubtedly has many advantages as a location for manufacturing and other enterprises, and a systematic plan and effort to present these to the public and assist those who may contemplate taking advantage of the situation should bring gratifying results in further progress. The plan of organization of the two sister associations, as prepared by Charles Hall Davis, is presented in the booklet mentioned, and the board of governors of the Chamber of Commerce have endorsed the plan, invite criticism of it and solicit the assistance of the people in perfecting an organization along the general lines indicated. The booklet is being distributed by the Petersburg Chamber of Commerce, of which T. S. Beckwith is president and H. P. Stratton is secretary.

Wants a Sewerage Engineer.

The city of Orangeburg, S. C., is now planning to construct a modern sewerage system, the amount available for the purpose being \$50,000. Necessary surveys, plans, drawings, specifications and estimates have not been prepared, and a committee of the city council will meet at the City Hall on June 11 to select an engineer for this purpose. This is an opportunity which some engineer should take advantage of, and communications in reference to it can be addressed to L. H. Wannamaker, city treasurer of Orangeburg.

PLAN FOR BALTIMORE'S SEWAGE DISPOSAL.

[Written for the Manufacturers' Record.]

In their report as to the best method of disposal of sewage under the \$10,000,000 enabling act, Messrs. Rudolph Hering, Samuel M. Gray and Francis P. Stearns, advisory engineers to the sewerage commission of Baltimore, say:

"To determine the best method of purifying the sewage of Baltimore, in compliance with the requirements of the act under which your honorable body was organized, we made an extended examination of all the usual methods of treatment.

"We were soon able to eliminate all but three such methods, the characteristic features of one being intermittent filtration through natural sand beds, that of another being intermittent filtration through artificial sand beds, and that of the third being the sprinkling of the sewage upon beds of small broken stone.

"The first method, for which sufficient areas of sandy land were found only in Anne Arundel county, was rejected because it was found that the nature of the sand, its admixture with clay, the high elevation of the land and the distance from the city were all unfavorable features, and after making outline plans and cost estimates this was clearly the most expensive of the three methods.

"We next examined the available territory with reference to preparing artificial beds, as now used in this country and in Europe, and found several good locations for such treatment. One was situated in Anne Arundel county, near Glenburnie and Curtis creek; another on Patapsco Neck, between North Point road and Back river. Outline plans and cost estimates indicate that the cheaper and better project was the one located on Patapsco Neck. This project was, therefore, carefully worked out and is fully described.

"Finally, we examined the available territory for the sprinkling filter system, which method of purification has been used in Europe for eight years. This system has yielded such satisfactory results that it is now being introduced in a number of cities. We therefore gave it a searching examination.

"Two favorable locations were found in Anne Arundel county, one near Curtis Bay and the other near Swan creek, of which the latter was studied more in detail because of some greater advantages. Two other locations were found on Patapsco Neck, one near Bear creek and the other near Back river, of which the latter, being near a larger body of water, was preferred.

"Estimates of cost of the intercepting and outfall sewers and of pumping the sewage demonstrated that, as between Anne Arundel county and Patapsco Neck, by far the cheaper project was the one in the latter locality, near Back river.

"A final comparison of the two projects having the greatest merit, and the characteristic features of which are intermittent sand filtration for one and sprinkling filters for the other, indicates a substantial economy in favor of the latter, both in cost of construction and annual operation. We have, therefore, recommended it to you for adoption.

"Briefly stated, this system comprises first a series of reservoirs called 'septic tanks,' into which the sewage is discharged from the outfall sewer and remains from six to eight hours, depositing therein much of its suspended matter as sludge, which gradually is reduced in quantity and made inoffensive by bacterial action, and finally is discharged on adjoining lands.

"The partially clarified liquid of the septic tanks flows to the so-called sprinkling filters. These are composed of beds of small broken stone about nine feet in

depth, upon which the sewage is discharged in the form of spray from a large number of nozzles placed about 15 feet apart at their surface. The sewage trickles or filters through the beds, a thin film of liquid surrounding each stone, and issues below freed from its putrescent matter.

"This effluent then enters settling basins, where it remains about three hours, and deposits the films of matter detached from the sprinkling filters. The removal of the bacteria by the septic tanks, sprinkling filters and settling basins is in the neighborhood of 95 per cent. of the number contained in the original sewage.

"The final process of purification is secured by discharging intermittently the effluent from the settling basins upon artificial sand filters, by which substantially all the remaining bacteria and fine suspended matter are removed, so that the final effluent is clear and has obtained the highest practicable degree of purity."

"The cost of establishing sewage disposal works to obtain this end we have estimated as follows, excluding the cost of acquiring the necessary land:

"For the installation of a plant to purify 75,000,000 gallons of sewage per day, \$3,283,250.

"For the annual cost of operating the same, exclusive of interest and other fixed charges, \$115,500.

"It will not be necessary to build the entire plant at once, but only so much as will be required to purify the amount of sewage delivered for a few years after the works are started. We suggest this procedure not only for economical reasons, but to obtain all possible benefit from the experience which will have become available during the first years of operation.

"We are aware of the fact that works of the type we have proposed have not yet been operated in our country on a large scale, although important experimental work has here been done. We are also aware that the works proposed at Baltimore constitute by far the largest undertaking of sewage purification in this country. However, enough plants of this type have been operated in Europe to furnish the necessary satisfactory precedents. After carefully weighing all of the evidence we are entirely satisfied that not one essential feature of the work is an experiment; that good management and operation will secure the desired results, and that these will be obtained at a less cost than with any of the older methods."

"Such is the summary of the recommendations of the advisory engineers. In their detailed report, after discussing the various modern methods of sewage disposal and giving their reasons for the elimination of those which they did not consider adaptable to Baltimore, the engineers say:

"We recommend the method of sewage disposal by the city of Baltimore in which the sewage is purified by passing it successively through septic tanks, sprinkler filter, settling basins, and then intermittently through artificial sand filters, the works to be located on Patapsco Neck, near Back river, and the purified effluent to be discharged into that body of water. In accordance with what is now almost universal practice when a special treatment of sewage is required, we recommend that the sewers be built according to the so-called separate system, in which the sewage is kept apart from the storm and ground water, which are removed in separate channels."

"At present we are advised that the water consumption is about 115 gallons per capita daily, or an average of 65,000,000 gallons daily. This quantity ranges

as a monthly average from about 50,000,000 to 75,000,000 gallons daily. From our experience with this subject in other places, it is our opinion that in the earlier years of the new works the total amount of the sewage would not exceed the amount of the water supply. In subsequent years, when the sewers are extended into the less thickly populated portions of the city, and buildings are more generally connected with the sewers, the sewage increased by ground water will be materially in excess of the water supply. The exact amount of sewage to be provided for in the future is uncertain, as it will depend upon the policy pursued in preventing the waste of water and upon the care taken to prevent ground and storm water from entering the sewers. In making our estimate of future capacity we have assumed that special care will be taken to prevent a water waste, and that the same care will be taken to prevent the entrance of ground water and storm water into the sewers. Accordingly, we reckon that in the future the average quantity of sewage will be 150 gallons per inhabitant, and to make a sufficient allowance for the fluctuations in the sewage flow at different portions of the day and of the year, for the increase of ground water during wet periods and for the unavoidable entrance of some storm water during storms, we have assumed that double the above quantity may have to be taken care of for short periods. Under these extreme conditions, however, sewers, pumping stations and other works may be operated to their full capacity without any further margin for contingencies. Intercepting and outfall sewers should be planned on the above basis. For a population of 1,000,000, which may be reached by growth and annexation between the years 1925 and 1935, these should be able to convey 300,000,000 gallons per day when flowing full. Pumping engines, force mains and other works which can be readily duplicated have been estimated of sufficient capacity to provide for an average flow of 75,000,000 gallons per day and an extreme flow of 150,000,000 gallons per day. As the sewers will be designed on the separate system, it is now possible, from data available from a variety of sources and with due regard for the influence of the various industrial establishments will have on it, to estimate approximately that the average composition of the sewage expressed in weight of different substances will be of about 14 grams of total nitrogen per capita daily and upon total suspended matters of about 90 grams per capita daily, of which about 60 to 70 per cent. will be of an organic nature."

The report then goes into a detail comparison, both as to cost and practicability, of the location of the disposal works and pumping stations at various points, the description of the method of intermittent filtration through sand, the filtration on natural and artificial beds and the description of the operation and cost of construction of a plant for the intermittent filtration of 75,000,000 gallons of sewage daily through artificial beds on Patapsco Neck. After giving reasons for rejecting the different methods considered, the report then describes the purification by septic tanks and sprinkling filters with supplementary settling and intermittent filtration, which is the plan recommended, and which comprises the following principal steps:

"1. The deposition in large basins of the coarse matters suspended in the sewage, and which, as a rule, have a specific gravity greater than that of water.

"2. The accumulation of the sludge (the deposited solid matters) on the bottom of the basins under conditions facilitating bacterial activity so as to liquefy and gasify so far as possible the solid organic matters in the sludge. This bacterial process is known as 'septicization,' and

converts the ordinary settling basin into the so-called 'septic tank.'

"3. The disposal of the residual sludge from septic tanks upon land in such a manner that its water is quickly reduced by evaporation and filtration, and that the resulting fairly dry humus and mineral matter is inodorous and inoffensive.

"4. The application of the partially clarified sewage coming from the septic tanks to areas of broken stone called 'sprinkling filters' in the form of spray under such conditions that the remaining putrefying organic matter in the sewage is so acted upon that the effluent from the sprinkling filters will not be putrescible, and so that the bacteria in the sewage will be largely eliminated.

"5. The deposition in small settling basins of the coarser suspended particles contained in the effluent of the sprinkling filters and coming for the most part as films detached from around the broken stone in the sprinkling filters.

"6. The supplementary treatment of the clarified and non-putrescible effluent of the sprinkling filters after it leaves the settling tanks by means of intermittent filters. 'Works having a normal capacity of 75,000,000 gallons daily would require structures to carry out the full steps above mentioned substantially as follows: Septic tanks holding eight hours' storage, having a maximum depth of 12 feet and having an area of about 400 feet by 800 feet; sprinkling filters comprising 30 acres in area of broken stone averaging about 9 feet in depth; supplementary settling tanks holding three hours' storage, having a depth of 10 feet and covering an area of about 300 feet by 500 feet, and intermittent sand filters having a net area of 100 acres. Together with these structures there would be required numerous conduits, drains, gates and other appurtenances."

The report then goes into a detailed description of the more essential features entering into the construction and opera-

tion of the works recommended, and then gives the following estimated costs of construction and annual operation:

I.—CONSTRUCTION.

A.—*Septic Tanks, Sprinkling Filters and Settling Basins.*

Septic tanks, 25,000,000 gallons gross capacity, 10.5 feet average depth, with inlet and outlet conduits and connections, baffles, drains, etc., complete.....

\$200,000

Sprinkling filters, 30 acres net filtering surface, 9 feet average depth, with foundations, drainage system, distributing conduits from septic tanks to individual filters, pipes, gates, nozzles, etc., flushing arrangements, collecting drains, controlling house, office and laboratory, electrically operated gates, etc., complete.....

1,520,000

Setting basins, 11,000,000 gallons capacity, 10 feet average depth, complete with connections from sprinkling filters.....

125,000

Sludge disposal plant, including conduits, pumping stations complete for furnishing flushing and wastewater, piping, reservoir, lighting plant and minor auxiliary works, complete.....

105,000

Setting basins, 11,000,000 gallons capacity, 10 feet average depth, complete with connections from sprinkling filters.....

292,500

Total, exclusive of land.....

\$2,342,500

B.—*Supplementary Intermittent Filtration.*

Conduit from settling basin to filter beds and main distributor.....

\$53,000

Filter beds, 100 acres net filtering surface.....

742,000

Sand-washing plant and other auxiliary works.....

80,000

Supervision and contingencies, 15 per cent.....

905,000

135,750

1,040,750

Total, exclusive of land.....

\$3,283,250

II.—ANNUAL OPERATION.

A.—*Septic Tanks, Sprinkling Filters and Settling Basins.*

Supervision, chemical and bacteriological assistants.....

\$10,500

Attendants not included below.....

13,000

Disposal of sludge from septic tanks and settling basins.....

8,000

Average sum to be allowed each year to provide for cleaning the material in the sprinkling filters at 10-year intervals.....

19,000

Coal, supplies, repairs and renewals.....

10,000

B.—*Supplementary Intermittent Filtration.*

Care of beds, conduits and grounds, including removal, washing and replacing of sand.....

55,000

Total, exclusive of land.....

\$115,000

which does so large a business is more at peace with its shippers. Roanoke is headquarters for the Norfolk & Western Railroad. Here are the general repair and construction shops of that road, employing 4700 hands, to which additions are being made that will require 1500 additional hands.

Here are also one of the largest bridge works in the country, three iron furnaces, cotton mill, knitting mill, foundry and machine shops, extensive overall factories, large printing establishment, planing mills, brick works and many other industries. In the families of the men who work in the shops are numbers of women and boys who would be available as factory hands. While a good start has been made in the way of industrial enterprises, the field has hardly been touched, as is evidenced by the fact that there is no furniture factory at Roanoke yet.

In his pamphlet on conditions existing at Roanoke, and in the presentation of the claims of the city as a good location for manufacturers and as a residential city, Mr. Jacobs points out the present remarkable prosperity of the city, as evidenced by the fact that during the first four months of 1906 building permits have been granted for residences and business houses at an estimated cost of \$320,711. Since January 1, 1903, it is declared that the total value of buildings erected will not fall short of \$3,000,000. This activity in building has not been occasioned by speculations in real estate, but is the natural and logical result of having to take care of a large influx of new population attracted to the city by the developments which have occurred.

Roanoke is declared to be ideally located. It is situated in the fertile Roanoke valley, the Roanoke river flowing along its southern border. It is environed by the Blue Ridge and Allegheny mountains, and is 1000 feet above sea-level. In summer the temperature rarely goes above 90, and then only for a day or two. The winters are usually marked by an absence of snow and excessive cold.

The city is unusually favored in its source of water supply, the water used by the city being furnished by a crystal spring located at the base of Mill mountain, a short distance from the city, which is really the outpouring of an underground river which has a flow of 5,000,000 gallons per day. In addition to this supply, a freestone water adapted to manufacturing purposes is piped from Bedford county.

The city's area is five and one-half square miles. It has 104 miles of streets, which are generally well paved or macadamized. A complete sewerage system, gas mains and electric-light plant are also among the conveniences of the city. A recent issue of \$400,000 of city bonds will be utilized for the further extension of sewers and street improvements, and when completed Roanoke will be able to boast of as well-paved streets and as fine a system of sanitation as can be found in any city of like size in the country.

Surrounding Roanoke are the finest of agricultural lands adapted to a great diversity of products. This includes, besides corn, wheat and vegetables of all description, lands where fruits of the finest varieties are raised. Around Roanoke are vast supplies of timber and iron. Adjacent to the Pocahontas field the finest steam coal is delivered at Roanoke at \$2.10 per ton.

In addition to the excellence of coal supplies, the advantages of electrical development by water-power are promised. There is at present in course of construction and nearing completion an immense dam at a point on the Roanoke river about four miles east of the city, which will be used to generate electric power for manufacturing establishments and for lighting. The erection of this dam and the assur-

RAPID ADVANCE AT ROANOKE.

[Special Correspondence Manufacturers' Record.]

Roanoke, Va., June 2.

There has just been issued by the Chamber of Commerce of this city a pamphlet on Roanoke—"A City of Enterprise, Energy and Progress," as the title page puts it—in which interesting information is given as to the location of Roanoke, the climate and water supply, its manufacturing, commercial and educational advantages and its general desirability as a place of residence. The pamphlet was written by Mr. E. B. Jacobs, secretary of the Chamber of Commerce, who is keenly alive to the importance of advertising and is doing his utmost to secure liberal appropriations by the Chamber of Commerce and the city council for an advertising fund which will enable Roanoke to carry on an extensive and adequate campaign of advertising.

Roanoke people believe their remarkable city to have now entered upon a more important stage of development than it has ever known, and are convinced that Roanoke will before long become the second city in size in Virginia and one of the most important manufacturing and trade centers in the South.

A new impetus has been given to the growth of the place by the location of the Deepwater-Tidewater Railroad, now under construction. Roanoke is the only city of size touched by the road from starting-point on the Kanawha river to destination at Hampton Roads, and so actively is the work of construction proceeding that some 500 hands are employed on contract work to the east and west of Roanoke within a radius of 100 miles. The company has bought 30 acres of land in Roanoke and

ance of cheap power is expected to prove an important factor in the location and development of business enterprises at this point.

Roanoke is a good distributing point as well. It is eight hours to Baltimore, nine hours to Norfolk, 14 hours to New York, and is thus in a position to easily reach important markets of the country. With agricultural surroundings equal to the support of a large industrial center, Roanoke feels certain of an important development in industrial directions.

The school facilities of Roanoke are of a notable sort. In addition to a very extensive public-school system there are in the vicinity of Roanoke a number of institutions for young men and young ladies which have become famous through the long years of their existence.

The total bonded indebtedness of the city on January 1, 1905, was \$793,000, with a credit in the sinking fund of \$165,575.85. This does not include the recent issue of \$400,000 of 4 per cent. improvement bonds. The present tax rate is—city tax, \$1 per hundred; school tax, 25 cents; State tax, 35 cents—a total of \$1.60 per hundred, based on a fair, conservative valuation of property.

Roanoke has an excellent system of street-car service, which not only covers the city itself, but is extended to the suburban towns of Salem and Vinton, as well as to Mountain Park, a popular summer resort located about two and one-half miles southeast of the city.

It is declared that Roanoke is steadily growing in importance as a distributing point for all classes of merchandise and manufactured products. Situated at the

gateway of Southwest Virginia, in close proximity and in direct communication with the Virginia and West Virginia coal fields, her wholesale merchants are afforded exceptional advantages for easily reaching their trade.

Mr. Jacobs thus concludes his interesting pamphlet:

"To summarize all facts pertaining to general conditions existing at Roanoke at this time, and the brilliant outlook for the city's future, it may be truthfully stated that realty values are more stable, trade conditions in all lines more strikingly evident than at any time since the city's birth.

"Located in one of the most fertile sections of Virginia, environed by the mountains of the Blue Ridge and the Alleghenies, with a climate which is unexcelled, with an unfailing daily supply of 5,000,000 gallons of pure spring water, with an admirable street-car service affording quick schedules to all parts of the city and to suburban towns, with a public-school system equal to that of any city of similar size in the State, with a municipal government honestly and economically administered, with a Chamber of Commerce composed of leading business and professional men ever ready and willing to assist in whatever may tend to the upbuilding and advancement of the city's interests, and with a citizenship proud of the splendid results achieved in the past, and inspired with enthusiasm and confidence in the future, Roanoke stands before the world to-day a queenly municipality, crowned with her well-earned prestige as a city of enterprise, energy and progress."

ALBERT PHENIS.

LABOR AND IMMIGRATION: GEORGIA'S PROBLEM.*

By MR. F. B. GORDON, President of the Georgia Industrial Association.

To help meet and solve some of the problems constantly confronting the textile industry by conference and co-operation is the object of this association, and we are gathered here today, a body of practical business men, on the very serious purpose of conferring together in an endeavor to overcome certain apparently insurmountable obstacles and to remedy, if possible, certain well-recognized evils pertaining to the great cotton-spinning industry of Georgia and the South.

Each mill manager or executive here today has in his individual plant certain duties to perform and his own peculiar questions to solve, and he must look to himself, and not to his neighbor, for the successful outcome of his operations; but there are other and broader matters which concern the business as a whole where he can both give and receive advice of value, and by these annual conferences and the inauguration through them of effective committee work the Georgia Industrial Association has repeatedly shown its value in dollars and cents to its membership, and I firmly believe that by a cordial co-operation on the part of all of the cotton mills of Georgia no better investment offers to each member than the small expense necessary to sustain the work and uphold the hands of your officials and committees in their work for the good of the whole.

During the year that has past this work, known to all of you, has been persistently, faithfully and successfully carried out. We have kept from your shoulders the burden of adverse, unwise and paternalistic legislation. We have continued a campaign of education in the press looking to a correct understanding on the part of

the general public of our views on many questions, and the correction, as far as possible, of the calumnies of commercial rivals and labor agitators, and while perhaps this work has not impressed itself upon some of our members, yet it has been far-reaching and of great value not only to those cotton mills that have broadly recognized its value and contributed towards its success, but equally valuable to those mills whose managers have failed wholly to aid us, at the same time receiving the benefits that have come to all.

In considering the questions which should receive special attention at this convention and in planning for a line of work for another year you will note from the personnel of the distinguished speakers who will address us that the most prominent theme at present in our minds is the question of scarcity of labor in all lines of industrial work in the South, especially as it restricts and impedes not only the further development of the textile industry of our section, but prevents the full employment of the capital already invested. The latest available figures as to cotton mills of Georgia show that we have 113 plants in operation at the present time, equipped with 1,770,967 spindles and 38,590 looms.

Twenty-two dollars to the spindle will very closely approximate the average amount upon which these plants are capitalized and on which they must earn dividends, or a total capital in round figures of \$40,000,000. Recent estimates by competent authorities would indicate that an average of 10 per cent. of all the cotton-mill machinery in Georgia is constantly idle for want of the needed number of operatives. Thus we find in one industry in one State alone \$4,000,000 of idle capital that should be doing its part towards the distribution of pay-rolls and the crea-

tion of dividends. Or, to paint a more vivid picture, imagine 12 average-sized cotton mills in Georgia absolutely shut down all the time for want of hands to run the machinery, and you can better realize just what this scarcity of labor means to one industry.

This idle machinery also has a direct bearing on the price of cotton, to the detriment of the planter, for the decreased demand, estimated from this cause alone by Mr. Henry G. Hester of the New Orleans Cotton Exchange, amounted last year to 500,000 bales.

This, briefly, is the situation which confronts us. The remedy can only be found in the exercise of the broadest statesmanship looking to such legislation as shall enable Georgia to intelligently and effectively draw to her fields and farms, her mills and mines, the most available and desirable classes of immigrants.

Unfortunately, wide differences of opinion exist among our own members and among the leading business men and statesmen of Georgia as to just what we want and how best to meet the crying need of more labor.

In the meetings of your executive committee this question has been fully discussed, and the majority of that committee recognizes the trouble that might ensue from the introduction of a few aliens among the native mill help now employed, yet I believe I correctly state the attitude of your committee when I say it would gladly aid any movement looking to the bringing in of more farm laborers, as the supply of native help would thus be increased.

In a broad way, therefore, the general situation would be helped every time a new laborer goes to work in Georgia, no matter in what line of work he is engaged. Let us then view it from this standpoint and aid in some general movement which shall crystallize public sentiment into legislative enactment and put Georgia into good working harness, backed with money and brains, and get our share of the desirable immigrants.

This shortage of labor, however, is not confined to the cotton mills of the State, but complaint is general with every branch of industry, and probably 10,000 to 20,000 more daily laborers could find immediate employment in Georgia.

The chambers of commerce of a number of Georgia cities have recently inaugurated a movement to bring this matter forcibly to the attention of the legislature, and the Chamber of Commerce of Augusta, Ga., has adopted a tentative resolution to this effect. I would earnestly recommend, therefore, that this convention adopt a resolution looking to the holding in Atlanta in July of an immigration convention, to which shall be invited all commercial bodies in Georgia, including all chambers of commerce and boards of trade, and that a special invitation be extended to the Georgia Agricultural Association and to the Georgia division of the Southern Cotton Association, to the end that this important matter may be considered by the most complete possible representation of the different interests affected, with the hope that harmonious and enthusiastic support may be secured looking to the establishment of a Georgia bureau of immigration.

Out of the great scarcity of labor in our cotton mills has come other minor difficulties to beset our mill managers, chief of which is the scrambling among themselves for what labor is available and the enticing of hands from one mill to another, with consequent payment of transportation, advancement of wages for the settling of old debts and the creation of new ones, and then frequently the realization that you have failed to help your own mill, while you have annoyed a friendly

competitor and have either demoralized and dissatisfied a good family of workers or aided an unworthy family of tramps. This unusual feature of our industry is universally complained of, and deserves the consideration of this convention, that some means may be suggested for curing the evil.

As scarcity of labor means higher-priced cotton and higher cost for its manufacture, so to preserve a living margin of profit we must look to increased demand for yarn and cloth.

Without a gradually-increasing export trade this demand cannot be sustained at remunerative prices. The sudden check in this export trade to our greatest consumer, China, is as alarming as it is significant, and cannot have anything but a depressing effect upon our industry as a whole. I will not here undertake to go into the cause of this disturbance in our trade relations with China or endeavor to relate what is being done to overcome it, as we shall have the pleasure during the convention of hearing from high authority on this important question. Yet the opportunity should not be lost on my part of urging every member of this association to acquaint himself thoroughly with national legislation now pending looking to certain modification of the present Chinese exclusion act and also the effort to secure the appointment of a commission to investigate trade conditions in foreign countries. These bills vitally effect the individual interest of every member of this association, and yet I fear that I can safely assert that not one member of our association here today knows how all of his own State delegation in the Senate and House stand on these questions or has urged upon them, personally or by letter, his views as to their importance to the South.

Is it any wonder, then, gentlemen, that we find some Southern congressmen yielding to the influence of the powerful lobby sustained by the National Federation of Labor, and for political reasons, coupled with a lack of information as to the wishes of their constituents, voting for measures that are adverse to the best interests of the industrial South.

The power lies largely in your hands to remedy this. Get in touch with your congressmen and let them know your views on these important matters, and the influence of this and other commercial organizations will be felt where it is badly needed. An immense foreign trade awaits development, and the South, which raises 80 per cent. of the world's cotton, should multiply her mills and obtain her share of the world's trade in textile fabrics.

As in the past, the Georgia Industrial Association stands unalterably opposed to a certain class of legislation which has its origin not in the economic needs of her own people and is not demanded by the present industrial situation, but which originates and is introduced and fostered by the agents and emissaries of national and generally anti-Southern organizations, some of them socialistic in their nature. These self-styled "reformers" especially wish to regulate the cotton mills of the South, regardless of the natural and climatic advantages which will for all time give us immense advantages which no legislation can diminish or remove.

Our association has no fight to make upon labor unions legitimately conducted and wisely officered. In this regard a great change has occurred, and the public stands ready to uphold labor unionism conducted on broad principles for the improvement and usefulness of their members; so also has the public learned to detect and denounce those labor leaders who have endeavored to nationally instill un-American ideas into the ranks of labor by advocating measures contrary to the prin-

*From an address at the annual meeting of the Georgia Industrial Association at Warm Springs.

ciples of liberty and equality upon which our institutions are founded.

The attempt to apply the obnoxious principle of the "closed shop" has been met with universal, patriotic and successful opposition on the part of the various industrial and "employers" associations throughout the country, and while these troubles have so far been little felt in this State, yet the present status of the question has an important bearing upon our industrial conditions.

It must not be inferred that this association condemns the union if properly and lawfully conducted. On the contrary, it recognizes it as an agency for the protection of the rights of its members and the accomplishment of great good when conducted by sober, honest, intelligent, industrious and patriotic men who seek to promote the social, moral and financial welfare of the members, with due regard for the rights and interests of all classes of the community, including non-union workmen and employers.

It is the evil which exists in the modern or closed-shop union which this association combats; the conspiracy against the rights of the non-member and the denial of his right to work where and when and under such conditions as he pleases which the association has exposed and defeated.

There are other important factors and conditions touching the textile industry of Georgia that should be brought to your attention at this time, but it has seemed best at this convention to concentrate our attention upon and direct our efforts towards those important questions which I have endeavored to outline.

Developing Virginia Asbestos.

The American Asbestos & Fireproofing Co. was incorporated this week with a capital stock of \$16,500,000, offices in the Wall Street Exchange Building, New York. Its officers are: President, Webster Blocker, president of Southern Contracting & Development Co., 41 Wall street, New York; vice-president, A. M. Higgins of Terra Haute, Ind.; secretary, R. B. Clark of Passaic, N. J.; treasurer, Franklin Henshaw of Scranton, Pa., and general manager, Mark W. Marsden of Philadelphia. Mr. Blocker writes the MANUFACTURERS' RECORD that the new company is a merger of the American Asbestos Co. of New York and the Mark W. Marsden fireproof building-material interests of Philadelphia, the properties including 8000 acres of asbestos and mica lands in Franklin and Bedford counties, Va.; a 100-ton daily fiberized asbestos mill at Bedford City, Va., and the Marsden plant, daily capacity 200 tons of fireproof building materials, at Manayunk, Philadelphia. The Philadelphia plant will be increased, and plans and specifications have been prepared for another mill to be built in Virginia on the Tidewater Railway, now under construction through the American properties. Mr. Warren J. Flick is chief engineer in charge. The branch offices in this country and Europe will be continued, and besides fireproof building materials, the company is manufacturing asbestos and mica specialties in the form of roofing, pipe covering, dental cement and electrical installations. The American roofing trade is handled through the Star Roofing Co., E. H. Mitchell, president, 17 State street, New York.

Cotton-Oil-Mill Superintendents.

The thirteenth annual meeting of the Cottonseed-Oil-Mill Superintendents' Association is in session this week at Dallas, Texas, with a three days' program bearing upon the technical details of the important industry.

Subscribe to the MANUFACTURERS' RECORD. Price \$4 a year, or six months for \$2.

MINING

Cumberland Gap Coal Field.

Walled in by mountains from the outside world, the coal field of Cumberland Gap, Ky., was entirely unknown to fame until 16 years ago. It lies in a basin 90 miles long by 15 to 20 miles wide, and contains numerous coal beds from five to seven feet thick. The coal is of high grade and the beds are in workable situation. This field is now connected with Louisville and Cincinnati by the Cumberland Valley branch of the Louisville & Nashville Railroad, and with Knoxville by the Southern Railway, but previous to 1892 no projector had tunneled its girdle of mountains. Since communication has been established with the markets of the world the coal output of the field has grown to 1,000,000 tons a year. The geology and resources of part of this field are now described by Messrs. George H. Ashley and Leonidas C. Glenn of the United States Geological Survey in a recent publication that is known officially as Professional Paper No. 49. The work was done in co-operation with the State geological department of Kentucky, of which Mr. C. J. Norwood is curator, and the report is published for general distribution.

The development of the coal is confined to the western part of the field studied, mainly to the west of Middlesboro, in Claiborne county, Tennessee. In that part of the field exploration has shown 13 coals of workable thickness and quality. Of these, eight coal beds at present are commercially mined. Nearly all of these beds have one or more partings. The coal of the eastern part of the field has been little tested, and knowledge of it is derived largely from natural exposures, a few small country banks, and a small number of facings. Near Harlan, in the eastern part of the field, one solid four-foot coal has been shown to have an area of over 100 square miles. Of the coals above this from one to three are locally workable and may be exploited over a large area in that part of the district. Between the Harlan district and the Middlesboro district from one to three workable coals underlie most of the area. The Harlan coal, as a rule, is not so badly split up with partings as the coals above Middlesboro.

In character these Cumberland coals compare well with the Westmoreland gas coals of Pennsylvania. Some of the coals at Middlesboro are successfully coked, and doubtless most of the coals of this area are of the same character, being as free from moisture, ash and sulphur as the best of the Appalachian coals.

Pocahontas Coal Properties Consolidated.

The MANUFACTURERS' RECORD has received a letter detailing the plans of the Superior Pocahontas Coal Co., which was incorporated during the week. Mr. Justus Collins, the company's president, writes as follows:

"The Superior Pocahontas Coal Co. has an authorized common stock of \$300,000, of which \$221,500 is paid in, with an authorized issue of \$200,000 of 6 per cent. cumulative preferred stock. The officers are Justus Collins, president, Charleston, W. Va.; C. J. Milton, vice-president, Cincinnati, Ohio; P. J. Riley, manager and treasurer, Hallsville, W. Va., and J. A. Lathin, secretary, Charleston, W. Va. The company has purchased the Blackstone Consolidated Coal Co., Helena Coal Co., Henritz Mining Co. and the Davy Crockett Coal & Coke Co., embracing leaseholds for about 4000 acres of the Pocahontas coal measures located at the railway station of Davy and the postoffice of Hallsville, upon the main line of the Nor-

folk & Western Railroad in McDowell county, West Virginia. The lands of all the companies mentioned are contiguous, and the vein of coal that is being worked with an output of the present mines of about 15,000 tons of coal a month has proven to be of exceptional quality, low in ash and sulphur and high in fixed carbon. It is the purpose of the present owners to build additional tenement-houses, large central electrical plant for the purpose of equipping the mines with the most modern and complete haulage and machine mine outfit and to increase the capacity of the mines to about 400,000 tons per annum. The Smokeless Fuel Co., New York, Chicago, Cincinnati, St. Louis and Richmond, Va., will have exclusive agency for the sale of the coal."

Big Coal Properties Purchased for Larger Development.

Referring to the organization of the Clinchfield Coal Corporation, which has incorporated with an authorized capital stock of \$10,000,000, the MANUFACTURERS' RECORD has received authoritative advices to the effect that the company has purchased all coal properties of the Crane's Nest Coal & Coke Co., the Dawson Coal & Coke Co. and the Clinchfield Coal Co. in Wise, Dickinson, Russell, Buchanan and Scott counties in Virginia, aggregating approximately 350,000 acres. The Clinchfield Corporation will proceed to make large developments preparatory to shipment over the line of the South & Western Railway when it is completed. Large operations are at present being conducted at Toms Creek, in Wise county, and at Dante, in Russell county. Officers of the Clinchfield Coal Corporation are Messrs. C. C. Chapin, president, and T. W. Wortham, vice-president, both of Richmond, Va., and J. Norment Powell of Bristol, Va., secretary-treasurer.

Developing 1000 Acres Coal Land.

An important coal-development enterprise for Western Maryland has been inaugurated by the organization of the Cumberland & George's Creek Coal Co., which was referred to in this column last week. It is the purpose of the company to install a mining plant at a cost of \$50,000 for developing an area of 1000 acres of coal property near Midland, Md., but details as to the construction work, etc., have not been determined as yet. Temporary officers of the company are Messrs. David J. Lewis, president; Benjamin A. Richmond, vice-president, both of Cumberland, Md.; Frederick S. Hanna, secretary, and Arthur L. Bailey, treasurer, both of New York. It is understood that the ultimate ownership of the property and organization of the company will be in the hands of New York interests.

Coal-Land Development.

The development of Alabama's coal industry is steadily progressing, facilitated both by increasing capacities and maintaining the operating efficiency of established plants, together with the organization of new companies. Among the latter is the Jagger Coal Co. of Jasper, which has been incorporated with a capital stock of \$50,000 to develop coal lands in the vicinity of Jasper. The company owns the property referred to and will probably open mines on the Northern Alabama Railway, about two miles from Jasper. Officers of the company are Messrs. Peyton Norvell, president, and H. W. Cranford, secretary and treasurer.

Lead and Zinc Mines.

According to dispatches from Memphis, Tenn., Messrs. S. M. Neely, B. J. Campbell and associates of that city, with several Arkansas capitalists, are promoting

the organization of the Powhatan Lead Co. with a capital stock of \$1,000,000. It is stated that the company will be incorporated in Arkansas and will develop about 400 acres of lead and zinc lands owned by the company in the northwestern part of that State. Mr. S. M. Neely, it is understood, will be the president of the company.

Mining Notes.

Shipments of coal from Newport News, Va., for the month of May amounted to 342,145 tons. This was an increase over the shipments for May, 1905, of 32,048 tons.

Messrs. Justus Collins and Joseph E. Beury of Charleston, W. Va.; C. J. Milton of Cincinnati, Ohio; F. T. Lee of Lynchburg, Va., and P. J. Riley of Thayer, W. Va., have incorporated the Superior Pocahontas Coal Co. of Hollsville, W. Va., with a capital stock of \$250,000 for the purpose of operating coal mines, etc.

The Iron and Metal Trades.

The *Iron Age* in its weekly review says: "The market for steel-making pig-irons in the Central West remains stiff, the largest transactions having been the purchase by the Republic Company of an additional block of 10,000 tons of Bessemer pig for August delivery at \$17.25, valley furnace. In the Chicago district negotiations are pending which may divert two merchant furnaces of the district from foundry iron to Bessemer. In the East one structural mill has purchased 15,000 tons of basic pig for the second half, and a plate mill has taken 5000 tons at \$17.50 delivered.

"Outside of some further buying of foundry iron by pipemakers in Eastern Pennsylvania, the volume of business in iron for melters has been very light throughout the whole country. The associated Birmingham makers are firmly holding at \$14, but outside makers are shading this 25 cents. In the Central West \$16 at furnace is being barely maintained. New England and Southern New York are feeling the competition of Buffalo makers. The troubles with the molders in many sections of the country are causing consumers to hold up shipments.

"The shapes and plates for three Lake vessels to be completed in 1907 have been contracted for, the amount involved figuring up about 15,000 tons. The shapes, 7000 tons, go to Pittsburgh, and the plates, 8000 tons, to Chicago. The plates for the Brooklyn water pipe, 15,000 tons, will be rolled by the Carnegie Steel Co.

"Moderate-sized orders for rails for this year's delivery are still being entered. The Baltimore & Ohio Company has placed 4000 tons. For 1907 there have been booked 35,000 tons for the Rock Island, 7000 tons for the Raleigh & Pamlico Sound and 4000 tons for the Atlanta & North Carolina Railroad. Tomorrow the Transcontinental Railway of Canada opens bids for 65,000 tons of rails."

Important Timber-Land Deal.

A timber-land deal which will doubtless materially promote the industrial progress of that section is reported to have been negotiated by A. E. Cogbill of Boykin, Va., and associates for the purchase of 23,000 acres of well-timbered land in Cleveland, McDowell and Rutherford counties, North Carolina. The property was purchased from the Middleby Land & Lumber Co., and it is understood that the purchasers will proceed to construct a railroad from Shelby to the tract in order to facilitate its development. The purchase price is thought to be approximately \$150,000, and an additional \$100,000 will be expended in preparing to begin actual operations for the development of this tract, together with another tract of 6000 acres which Mr. Cogbill and associates recently purchased in the same section.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BIG RAILROAD MOVE.

Chesapeake & Ohio May Get Zimmerman's Coal Lands and Detroit Railroad.

According to reports from New York, a movement is under way for the purchase of the Northern Coal & Coke Co. of Kentucky in the interest of the Chesapeake & Ohio Railway, and it is said that this move is considered to be the first step by the Chesapeake & Ohio to acquire the Detroit, Toledo & Ironton Railroad, including the Ann Arbor system and the Ohio & Kentucky Bridge Co.

In connection with this it is also said that after negotiations were begun to sell the Detroit, Toledo & Ironton Railroad the banking interests concerned suddenly announced that the line was no longer in the market, and simultaneously the underwriters of the Ohio & Kentucky Bridge Co. were notified that subscriptions were off, as J. P. Morgan & Co. had taken over the plan.

The coal properties of the Northern Coal & Coke Co. consist of over 325,000 acres of high-grade bituminous coking coal in the eastern part of Kentucky south of Ashland, and a year or more ago Eugene Zimmerman and H. B. Hollins & Co. started to build a bridge connecting Ironton, Ohio, and Ashland, Ky. It was also announced that they would build a railroad from Ashland to the coal lands. When the deal for the sale of the Cincinnati, Hamilton & Dayton Railway to the Erie Railroad fell through plans for the new railroad ceased, although work on the bridge continued, and it is said efforts were made to sell the coal land.

It is now stated that the Chesapeake & Ohio Railway is inspired to acquire the coal property and the Detroit, Toledo & Ironton Railroad because of a desire to strengthen its condition as a coal road. By purchasing the line in question the Chesapeake & Ohio Railway can send its coal unhampered into Ohio and Indiana, as well as to the Lakes, and it will, moreover, obtain the bridge between Ashland and Ironton to take the place of its ferry service.

The Chesapeake & Ohio is reported to have lately built a connection from its Big Sandy extension into the lands of the Northern Coal & Coke Co., and the Big Sandy line renders it unnecessary for that company to build another road to the Ohio river.

ZIMMERMAN'S PLANS.

His New Bridge Reported Sold, But Railroad Will Be Constructed.

President Eugene Zimmerman of the Detroit, Toledo & Ironton Railway is reported in an interview at Ironton, Ohio, as saying that he has sold his share in the new Ironton and Ashland bridge to the Morgan interests, this having been recently done, but that he expects work will begin soon on his proposed new railroad south from Ashland, Ky., the estimates for the construction being all in.

Mr. Zimmerman is further quoted as intimating that the Eastern Kentucky Railway, 36 miles long, might be purchased for a link in his projected railroad, which will develop coal fields. He also said that if his trains do not run across the Ironton and Ashland bridge, already started, another way would be found to get them across the Ohio river.

The Detroit, Toledo & Ironton Railway is being improved and will, it appears, be in excellent condition to handle coal traffic when Mr. Zimmerman's line into the

coal fields of Eastern Kentucky is completed.

The Eastern Kentucky Railway, to which Mr. Zimmerman refers, runs from Webbville to Riverton, Ky., 36 miles. It has two connections with the Chesapeake & Ohio Railway. The officers are N. Thayer, president, Boston, Mass.; Sturgis G. Bates, vice-president and general manager, Riverton, Ky.; E. B. Townsend, secretary and treasurer, Boston, Mass., and Robert B. Leedy, superintendent, Grayson, Ky. The general offices are at Riverton.

A GREAT RAILROAD.

Large Gains of Illinois Central Since Stuyvesant Fish Became President.

President Stuyvesant Fish of the Illinois Central Railroad Co. has submitted a report under date of May 16 to the board of directors reviewing the progress of the company since his first election as president on May 18, 1887. In that year the company was operating 2149 miles of railroad in Illinois, Iowa, Kentucky, Tennessee, Mississippi and Louisiana, and last year the total operated was 5584 miles, including Yazoo & Mississippi Valley Railroad of 1210 miles. In addition to the above States the company now has trackage in Minnesota, South Dakota, Wisconsin, Indiana, Arkansas and Alabama. Trains are also run into St. Louis, Mo.

The most interesting feature of the report is the showing made by statements comparing the results of operating the Illinois Central Railroad and the Yazoo & Mississippi Valley Railroad with the results of operating 12 other prominent railroads, including the Pennsylvania, Baltimore & Ohio and New York Central, the Chicago & Northwestern, the St. Paul, the Burlington, the Alton, the Rock Island, the Santa Fe, the Louisville & Nashville, the Missouri Pacific and the Mobile & Ohio.

The figures for the Illinois Central and the Yazoo & Mississippi Valley railroads for 1905 as compared with 1886 are as follows: Average number of miles operated, 5578, increase 3489, or 167 per cent.; gross receipts \$58,178,895, increase \$45,649,402, or 364 per cent.; gross receipts per mile operated \$10,430, increase \$4432, or 73.89 per cent. The other 12 lines showed gross receipts for 1905 \$806,100,581, increase as compared with 1886 \$572,941,095, or 245 per cent. The gross receipts per mile operated were \$11,572, an increase of \$2783, or 31.66 per cent. The average number of miles operated was 69,664, an increase of 43,128, or 162.5 per cent.

The Illinois Central and the Yazoo & Mississippi Valley report the dividends paid on common stock for 1905 as \$6,652,800, increase \$4,622,800, or 227.7 per cent.; capital stock, common, \$95,040,000, increase \$66,040,000, or 227.7 per cent. The percentage of dividends to capital was the same in 1905 as in 1886, namely, 7 per cent. Operation expenses and taxes were \$41,863,960, increase \$34,747,806, or 488 per cent.; percentage of operating expenses and taxes to gross receipts 71.96, increase 15.16, or 26.69 per cent. On the other 12 railroads the dividends paid on the common stock in 1905 amounted to \$62,021,988, increase \$32,501,240, or 110.1 per cent.; capital stock, common, \$1,119,040,761, increase \$571,388,693, or 104.3 per cent.; percentage of dividends to capital 5.54 per cent., increase .15, or 2.78 per cent.; operation expenses and taxes \$572,202,005, increase \$430,070,752, or 302.59 per cent.; percentage of operating expenses and taxes to gross receipts 70.98, increase 10.04, or 16.48 per cent.

The Illinois Central and the Yazoo & Mississippi Valley railroads report that

the tons of freight moved one mile in 1905 were 6,250,007,075, increase 5,530,079,067, or 768 per cent.; passengers moved one mile 662,681,811, increase 548,099,175, or 478 per cent. The other 12 railroads report tons of freight moved one mile 76,305,798,935, increase 59,408,764,790, or 351 per cent.; passengers moved one mile 9,598,435,859, increase 6,959,058,902, or 263 per cent.

The report also gives a number of other figures showing the advances made by the Illinois Central and Yazoo & Mississippi Valley railroads. These include also a table of statistics relating to all the railroads in the United States which may be compared with the Illinois Central and its associated properties.

Referring to the relative larger increase in the common capital stock of the Illinois Central, President Fish says that for every share of added capital the company has received in money at least its par value, and that each stockholder has had in respect to every issue precisely the same right and opportunity of subscribing, and in no case has the company paid anything to have its stock underwritten. Since the beginning of 1860 semiannual dividends have been paid in cash without intermission.

In addition to the foregoing, President Fish presents in his report a great variety of facts relating to the railroad and its operation, as well as to its officers and employees, all of which must be of interest to everyone in any way connected with the corporation.

WABASH TO BALTIMORE.

New Plan for Another Connection in West Virginia—The Uniontown Route Adopted.

A railroad scheme just reported from Pittsburg has reawakened interest in the plans of the Western Maryland Railroad to connect up with the Wabash system. According to dispatches from that city, Mr. D. F. Maroney announces the plan. He is associated with J. V. Thompson of Uniontown, Pa., in the projected Uniontown & Wheeling Short Line, which is already recognized as the connection which the Western Maryland will use to reach Wheeling after building the extension proposed from Cumberland, Md., to Uniontown. Mr. Maroney is reported as saying that the West Virginia Connecting Railroad will shortly be chartered in Pennsylvania to build a new railroad from Rogersville, Pa., on the route of the Short Line, to Belington, W. Va., where it will connect with the West Virginia Central Railway, which is practically part of the Western Maryland; also that the line will be built by J. V. Thompson, J. R. Barnes, A. J. Cochrane and C. N. Hanna, besides Mr. Maroney, who will be president.

Concerning this reported project officials of the Gould lines in New York are quoted as saying that the West Virginia Connecting Railroad would require heavy and expensive construction, too costly for building in the immediate future, but that construction on the Uniontown & Wheeling Short Line will soon be started in earnest. Engineers of the Western Maryland have recommended building from Cumberland to Uniontown, whence the Short Line will be followed to Wheeling, where a connection will be established with the Wabash. Although this route will make a considerably longer mileage to Pittsburg than the building of a Pittsburg line direct from Uniontown, its low grades would much more than compensate for distance in the handling of freight to tidewater at Baltimore. These officials are further reported as saying that eventually a direct route to Pittsburg will be constructed.

A report from Parkersburg, W. Va., says that the Wabash is surveying from

Jewett, Ohio, via Marietta to connect with the Little Kanawha Railroad in West Virginia. Two or three years ago this route was taken up for the purpose of making a connection between the Wabash and the West Virginia Central, but after some work was done construction abruptly ceased. The present movement, according to the Parkersburg report, is for the purpose of reaching coal fields in West Virginia. William Young of Chicago is said to be promoting the plan.

Other reports concerning the movement of the Goulds about the Pittsburg district say that the Wabash will shortly complete its line connecting with the Carnegie mills, and that it will then be in position to secure tonnage out of the steel-making district according to its contract. Furthermore, that the Pittsburg, Westmoreland & Somerset Railroad, from Somerset to Ligonier, Pa., has been completed in the interest of the Goulds and has been opened for traffic. It will develop timber and coal land. An extension to Myersdale, on the Wheeling Short Line, is said to be contemplated.

The Western Maryland is also surveying for the construction of its long proposed elevated railway over Jones' falls, in the city of Baltimore. The company may build a passenger station at the intersection of Baltimore street and the falls. Passenger trains have begun to run on the Cumberland extension, which has been open to freights for about two months. A regular schedule will soon be made.

Railroad Reports.

The Gulf & Ship Island Railroad Co. reports through Fisk & Robinson of New York and Boston for April, 1906, gross earnings, \$186,567; operating expenses and taxes, \$132,948; net earnings, \$53,619. For 10 months ended April 30, gross, \$1,752,542; expenses and taxes, \$1,189,263; net, \$563,279. For April, 1905, gross, \$150,567; expenses and taxes, \$115,365; net, \$35,202. For 10 months ended April 30, 1905, gross, \$1,547,770; expenses and taxes, \$1,164,775; net, \$382,995.

The Louisiana & Arkansas Railway reports through the same firm for April, 1906, gross, \$96,416; expenses and taxes, \$70,502; net, \$25,914. For 10 months ended April 30, gross, \$851,156; expenses and taxes, \$542,147; net, \$309,009. For April, 1905, gross, \$71,640; expenses and taxes, \$43,831; net, \$27,809. For 10 months ended April 30, 1905, gross, \$681,432; expenses and taxes, \$423,568; net, \$257,864.

The Northern Central Railway reports for April, 1906, comparisons being made with the corresponding month of last year, gross earnings, decrease, \$136,100; expenses, decrease, \$141,100; net earnings, increase, \$5000. For the four months ended April 30, 1906, comparison being made with the corresponding period of last year, gross earnings, increase, \$367,800; expenses, increase, \$23,900; net earnings, increase, \$343,900.

A Southern Summer Resort.

A recent article concerning the beautiful region in the mountains of North Carolina and adjoining States, with its delightful climate, and which is reached by the Southern Railway, says:

"The Sapphire country has been compared, and not inaptly, to the far-famed English lake district, but this lake region of the South is on a much grander scale. Its mountain peaks tower well into the clouds and its cliffs are twice the height of those in England. Its cataracts and mountain streams come plunging down their rocky beds from far greater distances than the English streams. In the region of the 'Land of the Sky' more than 80 mountain peaks tower over 5000 feet, and 23 of them are higher than Mt. Washing-

ton, the giant of the White mountains. No longer do the mountain resorts of New Hampshire, New York and Vermont hold sway, for since the erection of the splendid hotels and innumerable hosteries of more modest pretensions in this section, those seeking health, rest, recreation and change have found in this glorious mountain and lake region climate, scenery and comfort—and what more can one want?"

Mr. S. E. Burgess, traveling passenger agent of the Southern Railway, 119 East Baltimore street, Baltimore, can furnish information about how to reach this beautiful country.

St. Louis & North Arkansas Plans.

The St. Louis & North Arkansas Railroad, extending from Seligman to Leslie, Ark., 130 miles, was purchased for \$2,000,000 at the recent receiver's sale in the interest of the bondholders, the actual purchasers being John Scullin, who was president of company; D. R. Francis, R. C. Kerens, J. F. Shapleigh and Powell Clayton. The bondholders contemplate building the two proposed extensions, one from Seligman westward to Joplin, Mo., and the other eastward from Leslie to either Helena, Ark., or Memphis, Tenn. The fulfillment of these plans will give a line from a connection with the Santa Fe on the west to the Illinois Central on the east.

The committee on reorganization is composed of John Scullin, D. R. Francis, R. C. Kerens, Powell Clayton and R. S. Brookings, who will have charge of the proposed work, which it is estimated will cost about \$6,000,000. The committee is authorized to issue new stock and bonds at the rate of \$25,000 per mile for every mile completed. The bonds will be 4 per cents. It is also authorized to issue 5 per cent. construction notes and to organize a construction company. The St. Louis Union Trust Co. is named as depositary.

New Equipment, Rails, Etc.

The Beaumont Iron Works at Beaumont, Texas, has received a contract to build 70 logging cars for the Pickering Lumber Co. of Pickering, La.; also another order for six logging cars for the Bowman-Hicks Lumber Co. of Loring, La.

The South Atlantic Car & Manufacturing Co. of Waycross, Ga., has, according to a report from there, received the contract to build a considerable portion of the order for 1000 cars from the United States government for use on the Isthmus of Panama. The company was the lowest bidder, but owing to the fact that quick delivery is required, it was unable to take all of the order, and the remainder, it is said, will be filled by the American Car & Foundry Co. The South Atlantic Car & Manufacturing Co. now has, it is said, orders booked for more than 3000 cars, and the Waycross and the Savannah plants will be obliged to work full time for over 200 days to complete these contracts.

The Raleigh & Pamlico Sound Railroad has ordered 7000 tons of steel rail for delivery next year.

M. K. & T. Revision of Line.

The Patton & Gibson Company of Atlanta, Ill., which has been awarded the contract to improve the Missouri, Kansas & Texas Railway for about 100 miles between Denison, Texas, and South McAlester, I. T., informs the MANUFACTURERS' RECORD that the work will consist of double-tracking and the revision of line and grades. The grading work runs into millions of cubic yards, and will require about two years for completion. All grades will be reduced $\frac{1}{4}$ of 1 per cent. and the curves will likewise be cut down to secure economical and comfortable opera-

tion. The same contractors also have a large amount of work on the Chicago & Alton Railway.

The Missouri, Kansas & Texas Railway is reported to have ordered 21,500 tons of steel rails to be used on its revised line. The bridge girders of the company are now engaged in constructing culverts and bridges on the new improvement, and the contractors are about beginning their heavy work.

Ocilla & Valdosta Extensions.

Mr. J. J. Walker writes from Ocilla, Ga., to the MANUFACTURERS' RECORD as follows:

"A surveying corps has begun the survey on the extension of the Ocilla & Valdosta Railroad Co.'s line from this point to Macon, Ga., and the officials of the road state that work will be pushed. The distance is about 90 miles, and when the extension is completed it will give Ocilla, Fitzgerald, Rochelle, Hawkinsville and Perry the shortest line to Macon, Atlanta and other points north and west. When the road is completed to Valdosta it will also give the shortest line from Macon and other points north into Florida.

"An amendment to the charter will be granted the latter part of this month. It is not proposed to extend farther north than Macon nor further south than Valdosta at present. Its road will then be 160 miles long, and will traverse one of the best farming and timber sections of Georgia."

Des Peres Valley Railroad.

Concerning the recent charter of the Des Peres Valley Railroad Co. at St. Louis, Mo., with \$50,000 capital, Mr. F. N. Johnson, president of the Scullin-Gallagher Iron & Steel Co. of St. Louis, writes the MANUFACTURERS' RECORD that since the latter corporation was formed it has owned its tracks, engines, etc., which are now incorporated under the above railroad charter. The officers for the railroad have not yet been elected.

Continuing, Mr. Johnson says: "We own some 85 acres of land in the city of St. Louis, bounded on the north by the Missouri Pacific Railway tracks and on the south by the Frisco tracks, and we connect with both roads.

"We expect to increase our main line and side-tracks from time to time, as occasion requires, under our own supervision, and we will not make contracts for construction."

The line to be built is $4\frac{1}{2}$ miles long.

John M. Egan, President.

John M. Egan has been selected for president of the new Kansas City Terminal Co., and the proposed Union Station will be built under his direction. The company will shortly be incorporated. Although the site is not positively determined, it appears probable that the new depot will be to the south of the Belt Line tracks near 23d street, and between Grand avenue and Broadway. Mr. Egan is now president of the various corporations controlling the Armour-Swift-Burlington interests at Kansas City. He has been in the railroad business for 35 years or more, and was until about two years ago president of the Central of Georgia Railway.

C. & O. Lines Merged.

The consolidation of several subordinate companies in the Chesapeake & Ohio Railway system is reported from Kentucky. This includes the Big Sandy Railway Co., the Kinnickinnick & Freestone Railroad and the Chesapeake & Ohio Railway of Kentucky. The first of these lines runs from Whitehouse, Ky., to Elkhorn City, Ky., 85 miles; the second is a branch from Garrison, in Lewis county, to Carter, in Carter county, 19 miles, and the latter in-

cludes all other railroads operated by the C. & O. in Kentucky.

Appointments.

The Southern Railway Co. announces that Mr. Fred H. Behring is appointed assistant general freight agent of the Louisville division, with headquarters at Louisville, Ky., vice Mr. R. J. Curran, resigned to accept service with another company.

Mr. A. K. Orr is appointed division freight agent in charge of the Asheville traffic division, with office at Asheville, N. C.

The Illinois Central Railroad Co. announces that Mr. G. W. Schelke is appointed traveling passenger agent at Houston, Texas, vice Mr. N. D. Finch, transferred to Cairo, Ill.

The Potts Creek Railway.

Mr. H. Pierce, engineer of construction Chesapeake & Ohio Railway, informs the MANUFACTURERS' RECORD that Pitts, Dorrier & Co. of Scottsville, Va., are contractors for the proposed railway through Potts creek valley. This branch leaves the main line of the Chesapeake & Ohio near Covington, Va., and extends up Potts creek about 20 miles. It is not under a separate corporation, but is a branch of the C. & O. C. P. Barnett of Covington, Va., is the division engineer in charge.

Railroad Notes.

Messrs. Kirkpatrick & Johnson, engineers, Jackson, Miss., have been engaged to supervise the construction of the electric railways at Yazoo City, Miss.

Mr. C. N. Whitehead, secretary of the Missouri, Kansas & Texas Railway Co., reports that at a special meeting of the board of directors, held at Parsons, Kan., Mr. Adrian H. Joline was elected chairman of the board, vice Mr. Henry C. Rouse, deceased.

The recent press report from Beaumont, Texas, that the Texas & Pacific Railway was contemplating construction of a new line from Bunkie, La., to Orange, Texas, is denied by an official, who informs the MANUFACTURERS' RECORD that no such road is projected.

Hardware Men to Meet.

Among the topics to be discussed either in joint sessions or in separate gatherings at the meeting next week at Hot Springs, Va., of the American Hardware Manufacturers' Association and the Southern Hardware Jobbers' Association are increased profits demanded by increased expenses, trade courtesies due a competitor, effects of quantity differentials, uniform freight classification, best methods of posting traveling men, advantages and disadvantages of direct shipments, backbone as an essential element, integrity of contracts and the best business in the world. Those expected to participate in the discussions are Messrs. H. M. Price of H. M. Price & Co., Mobile, Ala.; W. W. Webber of the Webber-Ayers Hardware Co. of Fort Smith, Ark.; W. L. Sanford of the Roberts, Sanford & Taylor Company, Sherman, Texas; F. L. Scott of the Scott Hardware Co., Paducah, Ky.; Alfred Sang of the Garland Nut & Rivet Co., Pittsburg, Pa.; Charles H. Ireland of the Odell Hardware Co., Greensboro, N. C.; E. M. Bush of Evansville, Ind.; Fred Fox of Fox Bros. Hardware Co., Pine Bluff, Ark.; M. P. Jemison of the Allen & Jemison Company, Tuscaloosa, Ala.; W. M. Teague, Jr., of Teague & Sons, Montgomery, Ala.; G. H. Lyons of the Rose-Lyons Hardware Co., Little Rock, Ark., and Jas. H. Kennedy of New York city, N. Y. Addresses of welcome will be made by President F. P. Dunlop, J. T. McAllister and S. G. Gilfillan.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Georgia's New Woolen Mill.

In April the MANUFACTURERS' RECORD referred to a proposition for building another woolen mill at Rossville, Ga., J. L. Hutcheson, secretary-treasurer of the Park Woolen Mills of that city, being the promoter and named as president of the new company. It was also stated that the equipment is to be 7200 spindles, 200 looms and other machinery adapted to the production of cassimere for men's clothing. Plans and specifications for this plant have now been completed, the architects being Messrs. Huntington and De Sable of Chattanooga, Tenn. Their designs call for a main structure in the form of a hollow square, one side to be 286 feet long and the other side 260 feet long. This building will be partly one story high and partly two stories, divided into a weaving-room 80x200 feet, a spinning-room 64x200 feet, a carding-room 64x136 feet, and dye-house, stockroom, etc., 54x280 feet. It is proposed to begin construction work at once. Reports state that this plant will cost about \$45,000.

The Pickens Mill.

In its issue of May 3 the MANUFACTURERS' RECORD reported the organization of the Pickens Mill of Pickens, S. C., for the purpose of building a plant to manufacture 36-inch 48x52 four-yard coarse sheeting. The new company has now engaged Messrs. Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., as architects-engineers in charge, and that firm is preparing the plans and specifications for the plant. The textile equipment will include 15,000 spindles and about 450 looms, which machinery has been contracted for, but the mill supplies, steam plant, fire-protection equipment, etc., have not been bought. Mr. W. M. Haggard, president of the Glenwood Cotton Mills of Easley, S. C., is president and treasurer of the Pickens Mill, and will proceed with the construction as planned. Capital stock is \$200,000.

A \$30,000 Textile Mill.

Recently the MANUFACTURERS' RECORD referred to a report that Messrs. J. C. Price, C. B. Vance and associates proposed to establish a cotton mill at Batesville, Miss. The enterprise is now assured, and the Batesville Yarn & Cordage Co. has been organized to build and equip it. The company will install sufficient machinery to manufacture about 1200 pounds of cotton rope and twine daily, but has not decided as to the number of spindles. None of the machinery has been purchased, and the company is in the market for it, including a 125 horse-power Corliss engine and a 150 horse-power water-tube boiler. The Batesville Yarn & Cordage Co. is capitalized at \$30,000.

The Waxahachie Cotton Mills.

The Waxahachie Cotton Mills of Waxahachie, Texas, will open proposals on June 11 for the erection of an addition to its present building, according to plans and specifications on file at the company's offices and the Citizens' National Bank offices. Some months ago it was announced that the Waxahachie Cotton Mills had decided to double its present equip-

ment of 5000 spindles and 150 looms, and doubtless the addition for which contract is to be awarded will accommodate the new machinery to be purchased and installed. This mill consumes 3000 bales of cotton annually in manufacturing cloth, and its output is usually sold for months ahead.

A \$500,000 Mill Company.

The MANUFACTURERS' RECORD is advised that the Roanoke Rapids Power Co. of Roanoke Rapids, N. C., has secured subscriptions ensuring the organization of the \$500,000 cotton-mill company reported last September as proposed. This new company will not be organized until after the Roanoke Rapids Power Co. has awarded contracts for its further water-power-electrical developments, plans and specifications for which are about completed. These developments will increase the present horse-power of the Roanoke Rapids plant from about 4000 to 10,000, and contracts are expected to be awarded for dam and power-house during the next week.

The Victory Manufacturing Co.

Last week the MANUFACTURERS' RECORD reported at length the plans of the Victory Manufacturing Co., the corporation organized to build a mill of 25,000 spindles and 800 looms at Fayetteville, N. C. It may now be added that the company has engaged Messrs. Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., as architects-engineers in charge of construction and equipment. Contracts have been awarded for the cotton machinery, but not for the general mill supplies. Electric drive from a local transmission plant will be utilized. The mill site is two miles south of Fayetteville, on the Atlantic Coast Line.

The Icemorlee Cotton Mills.

A cotton-manufacturing plant just completed is the Icemorlee Cotton Mills of Monroe, N. C. This company was reported in the MANUFACTURERS' RECORD last November as having completed organization and awarded contracts for buildings and machinery. It has erected a main building 71x280 feet in size, installed 5000 spindles and accompanying machinery, built about 50 cottages for operatives, and is now manufacturing coarse yarns. The capital stock is \$125,000, and the officers are: President, W. S. Lee; vice-president, James H. Lee, and general manager, Chas. Iceman.

The Virginia Cotton Mills.

Reference was made last week to reported enlargements of the Virginia Cotton Mills at Swepsonville, N. C. It can now be stated that the company is building an addition 100x300 feet to its present building, one story high, for a weave-room in which will be installed eventually 600 looms. Contracts for the enlargement and for the new machinery have been awarded. The Virginia Cotton Mills operates by water-power, and at present has 12,000 spindles and 300 looms, its product being dress goods. About 300 operatives are employed.

For a Woolen Mill.

The Albany Business League is endeavoring to interest capital in the establishment of a woolen mill at Albany, Ga. The association is prepared to correspond with a practical woolen manufacturer who may think of locating in the South and is willing to invest some capital in such an enterprise.

The McIntosh Mills.

Several weeks ago the MANUFACTURERS' RECORD referred to plans for organizing another cotton-mill company at Newbern, Ga. It can now be stated that over

\$120,000 has been subscribed to the stock of the proposed company, and when \$150,000 has been taken the company will be incorporated under the title of the McIntosh Mills. Messrs. H. A. Hall, W. C. McBride and W. A. Steed comprise the committee in charge.

The Elk Mountain Bleachery.

Plans and specifications have been prepared for the erection and equipment of the textile bleachery recently reported as to be established by the Elk Mountain Cotton Mill Co. of Asheville, N. C. Contracts have also been awarded. The MANUFACTURERS' RECORD stated recently that the company had decided to issue additional stock to the amount of \$75,000 in order to add this plant and build a rock dam for water-power.

Textile Notes.

Reports state that W. B. Candler, Sr., of Villa Rica, Ga., will establish a hosiery knitting mill.

The Gwyn-Harper Manufacturing Co. of Patterson, N. C., has awarded contract to the Howard & Bullough American Machine Co. of Pawtucket, R. I., for additional picking and carding machinery and spindles. The company was recently mentioned as to add 1000 spindles.

The Trenton Cotton Mills of Trenton, Tenn., has expended about \$2500 for the installation of new boilers to improve its power plant. This company was recently mentioned as considering an expenditure of about \$20,000 for the installation of new carding and picking machinery also.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

Traction Engines for Honduras.

Stephen Burke, Belize, British Honduras, Central America:

"Can you put me in communication with manufacturers of traction engines? I should be greatly obliged if, in writing me, they enter into full particulars as to prices, etc., because if I decide to purchase an engine of this type I shall need it as early as possible. The engine is to be used in hauling bananas, as mules are very troublesome; so I should like, if possible, to know the draw-bar pull."

Electrical Fixtures for Cuba.

Arturo G. Boernsteern, P. O. Box 213, Havana, Cuba:

"I would thank you to inform me at your convenience of some reliable manufacturer of fixtures for electrical and gas uses. I am a large dealer in all kinds of electrical and gas supplies, and at present I am completing the opening of a branch store in one of the leading Havana thoroughfares. I propose now to include American-made fixtures in my business."

Advantages for Flour Milling.

The MANUFACTURERS' RECORD is informed that the city of Jellico, Tenn., has advantages for flour milling, and that there there is a good market for a modern mill producing flour and kindred by-products. This data is furnished by the Jellico Commercial Club, which invites correspondence from those who may be interested.

Mr. F. L. Merritt, land and industrial agent of the Norfolk & Southern Railway Co., Norfolk, Va., has issued a folder calling attention to Norfolk as a manufacturing center and to the advantages offered for the location of industrial enterprises in the electric division of his railroad.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Manufacturing Company Organized.

Reports from Asheville, N. C., announce the organization of the Ohio Manufacturing Co. with a capital stock of \$25,000 for the purpose of manufacturing oak and hickory carriage and wagon woodwork for several large vehicle factories. It is stated that the principal offices of the company will be at Asheville, and a dimension mill, which has been erected at Whitier, will be put in operation within a few days. Mills will be constructed at other points in North Carolina with a view to extending the industry in that State, while an extensive business will also be conducted in Kentucky and Tennessee. The company, it is understood, has contracted with the W. T. Mason Lumber Co. and Messrs. Coumbe & Hall for nearly all the hickory on the Murphy branch of the Southern Railway. Officers of the Ohio Manufacturing Co. are Messrs. A. F. Hall, president; F. Littleford, secretary and treasurer; S. J. Taylor, general manager, and L. E. Wilson, vice-president and assistant manager.

New Hardwood Company.

An important acquisition to Galveston's hardwood lumber industry is the Liberty Hardwood Lumber Co., which has been organized in that city by local capitalists. The company is capitalized at \$150,000 and has taken over the timber holdings and mill equipment of the Ranger Hardwood Export Co. of Houston, Texas. The property consists of about 10,000 acres of timber land at Big creek, in Liberty county, which is said to be heavily wooded with various kinds of hardwood, together with a modern hardwood mill. Officers and directors of the Liberty Hardwood Lumber Co. are Messrs. Moritz O. Kopperl, president; C. H. Moore, vice-president; Julian Ranger, secretary and treasurer; L. H. Kempner and John Neethe.

Cars for Panama.

Reports from Savannah, Ga., state that the South Atlantic Car & Manufacturing Co. of that city, which recently secured the contract for the construction of 400 flat cars for the Panama Canal Commission, will begin delivery on January 1. The cars, it is stated, will be constructed of Georgia pine and will be completed, but shipped in parts for convenience of transportation, to be mounted on the trucks after reaching Panama. It is understood that the South Atlantic Car & Manufacturing Co. is experiencing some difficulty in procuring a sufficient labor and material supply, but is overcoming this inconvenience and will be able to fill its contracts at the time specified.

Big Sale Consummated.

Reports from Raleigh, N. C., announce that final negotiations for the sale of the properties of the Blades Lumber Co. of Elizabeth City, N. C., to New York capitalists have been consummated. The properties referred to are said to embrace seven saw-mills and one planing mill located at Newbern, James City, Oriental, Blades and Jacksonville; three tugboats, barges and vessels, together with a half-interest in the properties of the Neuse Lumber Co. at Newbern, consisting of saw and planing mill and 50 miles of railroad. The timber sold is estimated to cut 1,000,000,000 feet.

Big Amount of Lumber Used.

In the construction of the freight terminals at New Orleans, La., of the Illinois

Central Railroad Co., the completion of which has recently been announced, it is stated that 4,700,000 feet of yellow pine were used in the wharf, while elevators D and E required 3,500,000 and 5,200,000 feet, respectively, making an aggregate of 13,400,000 feet. It is approximately stated that 600,000 feet of creosoted pine piles, together with a large amount of soft and hardwood lumber, were used in addition to the yellow pine.

Lumber Company Incorporated.

The Foreman-Blades Lumber Co. of Elizabeth City, N. C., has been incorporated with a capital stock of \$150,000 and is reported to have purchased the planing mill at Elizabeth City of the Blades Lumber Co. and the properties of the Elizabeth City Lumber Co. Among the incorporators of the Foreman-Blades Lumber Co. are Messrs. J. W. Foreman, L. R. Foreman, Clay Foreman, M. M. Foreman, L. S. Blades and L. C. Blades, all of Elizabeth City, and J. V. Blades of Newbern, N. C.

Yellow Pine Wanted.

The Beaumont Iron Works, Beaumont, Texas, is in the market for 60,000 feet of yellow pine of dimensions 6x6, 5x12, and sheathing 1x12.

Oak and White Boards.

Buyers of white inch boards, also oak boards, are invited to write Aaron Graham of Christiansburg, Va., for prices.

Lumber Notes.

Lumber shipments from the port of Brunswick, Ga., aggregated approximately 30,000,000 feet for the month of May.

The Catawba Valley Railway & Mining Co., E. S. Barnitz, treasurer and general manager, Salem, Va., desires to purchase 20,000 railroad ties.

The Norwegian steamship *Parran* cleared from Jacksonville, Fla., last week with a cargo of 24,000 cypress crossties for the Western Railway of Havana, Cuba.

The State board of forestry, provided for in an act passed by the last legislature of Maryland, has organized and appointed F. W. Besley of Prince George county State forester.

The Norwegian ship *Samuel Hansen* is loading a cargo of 1,000,000 feet of lumber at Moss Point, Miss., from the O'Leary mill of W. Denny & Co. on Escatawpa river. The ship will clear for the River Platte.

It is announced that the Rogers Hardwood Lumber Co. has purchased the saw-mill property of the J. G. Taylor Lumber Co. of Merrill, Miss. The purchasing company is repairing the plant and will begin operations within a few days.

The Hancock Naval Stores Co. of New Orleans, La., has been incorporated with a capital stock of \$400,000 for the purpose of conducting a naval-stores business. Officers of the company are Messrs. W. B. Gilliam, president; H. H. Gordon, first vice-president; H. E. Smith, second vice-president; I. W. Willis, third vice-president, and J. H. Grimshaw, secretary and treasurer.

Reports from 205 manufacturers to the forest service of the United States show that in the past year the production of tight packages was 2,624,630 alcoholic, 1,001,985 beer and ale, 1,149,705 cider, vinegar and pickle, 4,153,875 oil and packing-house, 909,716 molasses and syrup, 132,000 white lead and 10,420 tanks. Oak, cypress, gum, cottonwood, poplar and basswood, with some pine, fir and spruce, are the woods principally used in manufacturing such packages.

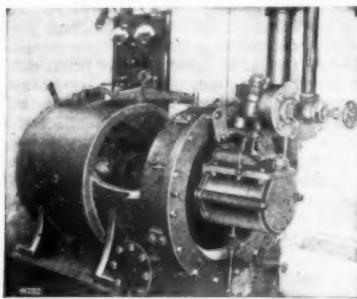
MECHANICAL

Small-Size Curtis Steam Turbines.

The compactness and simplicity of the horizontal Curtis turbine direct-current generating set have led to its adoption as a power unit among the small power users. With the growing business among the small and large manufacturers in the South the demand for power is ever increasing, and the small size Curtis turbine generating set is a model unit for this purpose.

Additions to buildings or the use of isolated rooms for increased manufacturing facilities call for more power in a place generally ill-adapted to a small steam engine with its length of piping or the often inconvenient transmission of power by line shafts and belts. In such a case the flexible electric system meets all requirements, and a compact Curtis turbo-generator may be set up as an auxiliary unit in the old engine or boiler room to furnish the necessary current for an efficient electric motor drive. As no expensive foundation is required, the cost of installation is materially reduced, and, as little attention is necessary, the unit may be located in any small unoccupied space near the boiler.

In addition to supplying power for motor drives, the turbine set makes an ideal lighting unit. Good light is essential to economic production, and the manufacturer may combine the generator for both light and power and obtain the gen-



SMALL-SIZE CURTIS STEAM TURBINES.

eral advantages of electricity in the most economical way. Several manufacturers have adopted this plan, among them being the Federal Distilling Co. of Baltimore, Md., and the Belknap Hardware Co. of Louisville, Ky. The first-mentioned company will use the 75-kilowatt Curtis turbine generators of the horizontal type, while the second company is using 125-volt machines of the same capacity for this purpose. A number of companies have adopted this method exclusively for lighting, among them being the Richmond (Va.) Cedar Works, American Pad & Textile Co. of Cartersville, Ga.; the Union Sulphur Co., Sulphur Mine, La., and the St. Leo Hospital, Greensboro, N. C. These examples show the variety of the work for which this turbine set has been found suitable, and other instances might be cited in which it has been satisfactorily adopted.

Aside from compactness, freedom from vibration and general appearance, the Curtis turbine of this type has other points of mechanical superiority over the small engines. There are but three bearings in the 15, 20 and 25-kilowatt turbines, two main bearings and the link between the governor and valve. In the large sizes the turbine and generator shafts are connected by a coupling and two other main bearings are added. As no internal oiling is necessary in the turbine, the exhaust steam is perfectly clean and may be used in the heating system without risk of clogging the pipes with oil. The turbine is in no way injured by being flooded with water from the boiler.

It is claimed that the Curtis steam tur-

bine embodies all the advantages of rotating over reciprocating motion, and has been successfully adopted for many of the purposes for which the small marine-type engines have hitherto been used.

The Curtis steam turbine is built by the General Electric Co. of Schenectady, N. Y.

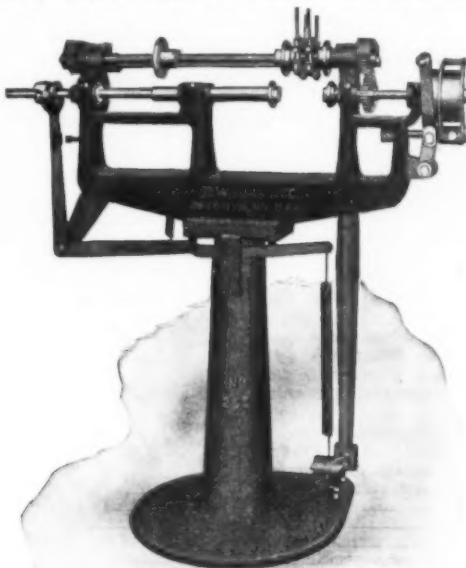
"Bliss" Double-End Flanging Machine.

An accompanying halftone illustrates a double-end flanging machine which has

and loose pulleys are 5 inches in diameter by 1 1/4-inch face. They make 240 revolutions per minute. The total weight of the machine is 375 pounds.

Revolving Scales and Sacking Machine.

Operators of mills, especially oil and fertilizer, who weigh and sack their products, know the desirability of having a mechanical device to attend to that work. This is a need which Southern inventors



BLISS DOUBLE-END FLANGING MACHINE.

just been put on the market by the E. W. Bliss Company, 137 Plymouth street, Brooklyn, N. Y. The machine does rapidly and neatly the flanging of both ends of the can bodies (soldered or lock-seamed) in preparation of double-seaming tops and bottoms. It will handle bodies from 2 to 8 1/2 inches in diameter and from 2 to 10 1/4 inches in height. It is easily adjusted for different sizes, as one set of chucks and flanging rolls answers for all sizes. A

have aimed to meet in perfecting the revolving scales and sacking machine, of which a view is presented herewith. The equipment is the Sawyer-Fulford Revolving Scales and Sacking Machine, which should forcefully appeal to all who use sacking devices in their mills, or to all who have not as yet adopted a more rapid and accurate method than the old slow hand means of sacking. The manufacturers state that this is not an experiment,

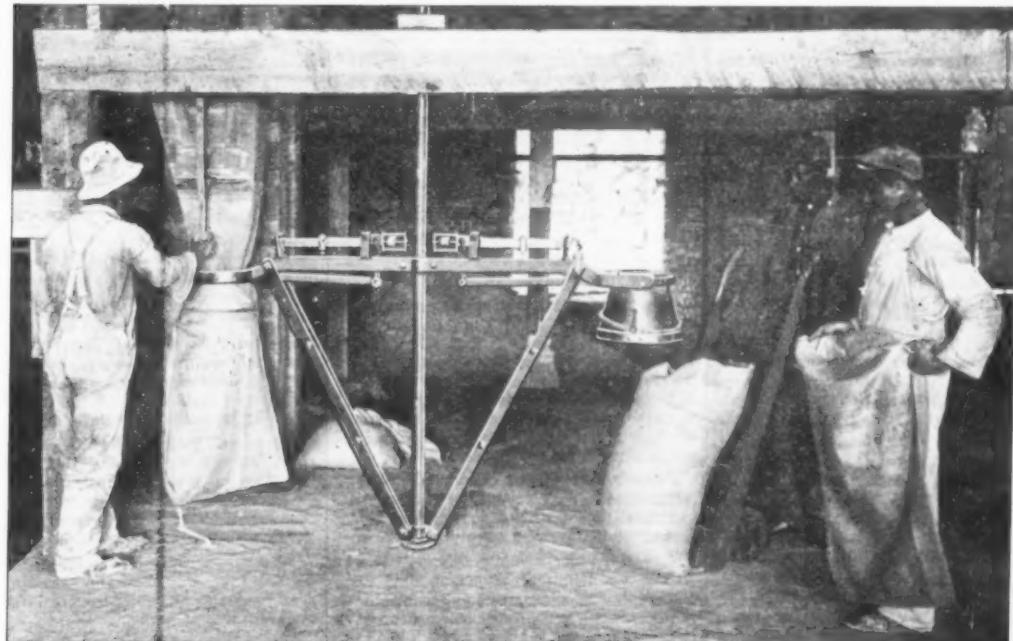
accomplished, the genius of the machine is apparent at a glance, two hands only being all-sufficient for any service to which it may be subjected.

"It consists of a center revolving post, from which projects, on opposite sides, two arms about three feet long, each carrying a complete scale and sacking device, and in operation, while one sack is being filled another (empty) is attached in place on the temporarily idle funnel.

"Therefore there is no delay involved in adjusting the sack nor any interruption whatever of the feed flow from the chute except during that momentary interval when the empty sack is taking the place of the one just filled. As this process is nearly instantaneous—requiring but the half-revolution of the turnstile—it may rightly be claimed that the capacity is equal practically to the uninterrupted flow of the feed, whether there be 200 tons per day or more, for the machine keeps no one waiting.

"It will be seen again that the half-revolution of the turnstile which places the empty sack in position operates by the same movement to carry the filled sack away from the chute direct to the truck, thus eliminating completely the strenuous labor of lifting and handling, so indispensable with all other machines in the removal of the sacked material. This labor-saving feature alone is sufficient to secure its established use wherever economy in labor spells reduction in the cost of the output.

"The operator's position at the chute is exempt from all disturbing movements, and he is consequently free to secure accuracy in the weight of every sack. This machine has been in practical use for two seasons at oil mills and fertilizer plants, and has given entire satisfaction. No reweighing needed after sacking with this machine. The meritorious points may be summarized thus: Simplicity—requires no expert to operate; parts are all in full view and easily kept clean; absolute accuracy in weight; graduated scales to weigh different-sized packages; quickness of



SAWYER-FULFORD REVOLVING SCALES AND SACKING MACHINE.

simple pressure on the treadle not only throws into action the two pairs of flanging rolls, but also grips and holds the can body during the work. On some machines this usually requires a separate operation, a hand-lever motion, which reduces the speed of the work. A special patented device prevents the receding of the tailstock during the operation, and in this way insures a more even flange than is possible with the usual construction. The tight

but a thoroughly tested working machine, now being successfully used by a large number of the largest mills in the South.

Messrs. W. H. Sawyer & Sons of Americus, Ga., are the manufacturers of the Sawyer-Fulford machine, and present the following description:

"The simplicity of the apparatus is manifest in the accompanying illustration.

"Again, in its method of operation as well as in the economy with which this is

operation; has two scales in one machine; is two machines in one—weighing and sacking; drops loaded bag on truck; does not tear sacks; inspection and adjustment of these scales identical with platform scales; if operator should attach bag carelessly the universal action of the bag-holder renders it impossible to get an inaccurate weight; orders for two different-sized packages filled at same time; saves time, labor, material and money."

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Bessemer—Street-paving.—Herzof & Bigler have contract for paving various streets with cement.

Birmingham—Beverage Factory.—Atlantic Wiseola Bottling Co. has been incorporated with \$6000 capital stock to manufacture non-alcoholic beverages; incorporators, G. S. Thomas, J. T. Thomas, A. J. Gilliland and others.

Birmingham—Grain Company.—Birmingham Grain Co. has been incorporated with \$30,000 capital stock. Ernest Reed is president; Mrs. E. P. Reed, secretary, and Dr. H. C. Pope, treasurer.

Birmingham—Cement-block Factory.—W. P. Brewer, 1707 First avenue, has purchased site on which to erect plant to manufacture cement building blocks. Five block machines with an aggregate capacity of 600 blocks daily will be installed.

Birmingham—Machinery Manufacturing.—T. E. E. Bartlett and David Blake will organize company with \$125,000 capital stock to absorb the Bartlett-Tewksbury Machinery Manufacturing Co. It is stated that seven acres of land have been purchased in East Birmingham on which a plant will be erected and that machinery has been purchased.

Calera—Woodworking Plant.—It is reported that the Alabama Cooperage Co. is considering the establishment of a woodworking plant, and is negotiating with the Calera Townsite Co., E. H. Holder, president, for site.

Gadsden—Water-power-Electrical Plant.—W. T. Brown of Ragland, Ala., is arranging for the development of the water-power of the Coosa river at Lock 4, previously mentioned.

Gadsden—Land Improvement.—Steel City Land Co., recently erroneously reported incorporated under Ensley, Ala., has completed organization with E. G. Cole, president, and C. E. Foster, secretary-treasurer; capital stock \$30,000.

Gadsden—Open-hearth and Gas-producer

Buildings.—Southern Steel Co., E. T. Schuler, president, has let contract to the American Bridge Co. of New York city for an extension to open-hearth building for the two 50-ton open-hearth furnaces now under construction, and to the Converse Bridge Co., Chattanooga, Tenn., for extension of gas-producer building to cover 10 new gas producers. These contracts are in connection with the extensive betterments announced previously.

Gordo—Cannery.—J. E. Hellams contemplates organizing company for establishment of cannery. Between \$6000 and \$10,000 will be invested.*

Jasper—Coal Mines.—Jagger Coal Co. has been incorporated with \$50,000 capital stock. Peyton Norvell is president, and W. H. Cranford, secretary-treasurer.

Mobile—Novelty Works.—West Mobile Novelty Co. has incorporated with \$20,000 capital stock to manufacture novelties, including a patent device for cleaning flues; incorporators, J. B. Brittain, W. H. McIntosh, F. H. Fleming, W. J. Bell and others.

Mobile—Electric-light Plant, etc.—Mobile Electric Co. has been incorporated with \$3,000,000 capital stock to take over the plant of the electric lighting company, which will be operated. It is also proposed to manufacture and sell gas-making apparatus, etc. C. E. Groesbeck is president; S. C. Shaffner, vice-president; S. S. Itubira, Jr., secretary, and N. P. Zech, treasurer. H. M. Bylesby & Co. of Chicago, Ill., are mentioned in connection with the enterprise. This company was previously reported as having purchased the plant, installing new and additional equipment. The company is reported as having purchased three lots and buildings adjoining present plant, and will spend \$300,000 in alterations and improvements.

Mobile—Gas Plant.—Mobile Gas Co. has been incorporated with \$400,000 capital stock to operate the plant of the Mobile Gas Light & Coke Co., recently acquired. It is proposed to make extensive improvements. F. R. Judd is president; Albert F. Kersting, secretary, and T. A. Rivers, treasurer.

Montgomery—Cooperage, etc.—J. S. Dowdell, Richard Tills and associates have purchased the Montgomery Cooperage & Hardwood Co., and it is stated a stock company will be organized to operate the plant.

Pollard—Saw-mill.—William T. Mayo, Benjamin F. Jernigan, Charles E. Dixon and others have incorporated the Conecuh Lumber Co. with \$5000 capital stock.

Samson—Cement, Stone and Brick.—Alabamite Stone Co. has incorporated with \$5000 capital stock to manufacture cement, stone and brick for building purposes; incorporators, W. J. Vankirk, B. R. McComas and P. M. Maldin.

Sardis—Lumber Company.—Incorporated: I. L. Smith Lumber Co., with \$3000 capital stock, by I. L. Smith, D. M. Smith and G. A. Smith.

ARKANSAS.

Altus—Water-power-Electrical Plant.—Southern Power & Development Co. has been incorporated with \$50,000 capital stock by D. A. Allen, John Allen and J. D. Crockett. It is proposed to build a dam across the Little Missouri river near Altus for the development of the water-power and the erection of electric plant for transmitting the power for lighting and power purposes. A water-works plant will also be built.

Arkadelphia—Woodworking Plant.—It is reported that W. E. Yeager of Birne, Ark., has submitted a proposition to establish a spoke, handle or chair factory.

Bonneville—Electric-light Plant.—Robbecke Milling Co. will erect stone building 28x40 feet, equipping as electric-light plant. A 30-year franchise was mentioned last week as having been granted.*

Gravette—Development Company.—G. W. Vanderslice, J. T. Manning, G. W. Dunbar and others have incorporated the Big Black Bear Development Co. with \$50,000 capital stock.

Jonesboro—Telephone System.—Automatic Home Telephone Co. has increased capital stock to \$100,000.

Little Rock—Cotton Mill.—A. H. Boyden of Salisbury, N. C., is reported as to submit a proposition for organizing a cotton-mill company.

Little Rock—Lumber Company.—South Arkansas Lumber Co. has been incorporated with \$10,000 capital stock by C. A. Bowman, C. K. McClure, H. J. Bowman and others.

Magnolia—Saw-mill and Cotton Gin.—E. H. Davies, C. E. Schumaker and John Wilkerson have organized company to establish saw-mill and cotton gin.

Russellville—Water-works.—City is considering the installation of water-works, and Oscar H. Wilson and J. F. Sauerman have been appointed to receive estimates and bids on the cost of construction.

Mammoth Springs—Canal Construction.—It is reported that the St. Louis & San Francisco Railroad, J. F. Hinckley, St. Louis, Mo., chief engineer, is arranging to dig a canal from Mammoth Springs to the Mississippi river near Memphis, Tenn., for draining thousands of acres of swamp lands in this vicinity.

Memphis—Lead and Zinc Mines.—Powhatan Lead Co. has been organized with \$1,000,000 capital stock for the development of 400 acres of lead and zinc lands in Arkansas. S. M. Neely is president.

Paragould—Cold-storage Plant.—E. B. Perkins is erecting cold-storage plant.*

Pine Bluff—Drug Company.—Anderson-Bacon Drug Co. has been incorporated with \$10,000 capital stock to take over the Anderson Drug Co. C. S. Bacon is president; J. B. York, vice-president; T. M. Lefebvre, secretary, and J. M. Anderson, treasurer.

Spadra—Coal Mines.—Guy M. Mallon, 411 Carlisle Building, and Herman Jurgens, both of Cincinnati, Ohio, mentioned last week as having purchased anthracite-coal lands in Arkansas, have secured a fully-equipped mining plant and will spend \$100,000 in improvements preparatory to operating.

Walnut Ridge—Woodworking Plant.—Cache Valley Lumber Co. has been incorporated with \$40,000 capital stock to manufacture lumber, wagon stock, wheel stock and car material; daily capacity 20,000 feet. Buildings are erected and plant is in operation. C. F. Ferguson is president; H. A. Culver, vice-president; C. L. Wight, secretary-treasurer.

FLORIDA.

Fort Meade—Phosphate Mining and Manufacturing.—W. B. Chisolm, vice-president and general manager of the Charleston Mining & Manufacturing Co., Charleston, S. C., has purchased a tract of land on Peace river near Fort Meade containing phosphate deposits, and will arrange at once for its development and the erection of plant.

Odessa—Lumber Plant.—Muller-Lutz Lumber Co. has been incorporated with \$50,000 capital stock; F. E. Muller of Tampa, Fla., president, and C. H. Lutz of Odessa, secretary-treasurer. Messrs. Lutz, Muller and associates were reported recently as having purchased 58,000 acres of timber land near Odessa for development purposes and to erect a saw-mill with a daily capacity of 50,000 feet.

Pensacola—Lumber Plant.—East Bay Lumber Co., Holley, Fla., will operate the plant of the Santa Rosa Lumber Co., recently reported purchased by S. B. Milligan and associates.

GEORGIA.

Buford—Cottonseed-oil Mill.—Buford Oil & Fertilizer Co., reported incorporated last week, will operate a one-press cottonseed-oil mill of 20 tons capacity; main building to be 30x100 feet exclusive of boiler and engine room; C. H. Nichols, engineer in charge.*

Cedartown—Railroad Repair Shops.—Central of Georgia Railway Co. is arranging for improvements previously reported to be made at its repair shops. The company will do its own construction work. Henry M. Steele, Savannah, Ga., is chief engineer.

Columbus—Furniture Factory.—It is reported that J. H. McClellan and associates have purchased site on which to erect furniture factory.

Cordele—Water-works and Sewerage System.—City is having estimates made for the extension of water-works and sewerage system to cost about \$35,000. A bond issue for \$50,000 for this work and other public improvements, it is stated, will shortly be voted on. Address The Mayor.

Girard—Concrete-block Factory.—H. T. Williams and Matt Tugge have purchased site on which to erect plant for the manufacture of concrete blocks.

Greenville—Water-works and Electric-light Plant.—The installation of water-works and electric-light plant is being considered, and Hill & Culpepper are said to be interested.

Griffin—Brick Works.—Griffin Brick Co. has been organized with \$50,000 capital stock and

privilege of increasing to \$100,000. Charles Wheeler is president; T. E. Drewry, vice-president; J. W. Gresham, secretary-treasurer.

Lagrange—Hardware Company.—King Hardware Co. has been incorporated with \$100,000 capital stock by H. G. Barnes, C. B. Adams and others.

Lumpkin—Electric-light Plant.—City will vote July 2 on the issuance of bonds for the construction of electric-light plant. Address The Mayor.

Newnan—Cotton Mill.—McIntosh Mills will be organized with capital stock of \$150,000 to build the cotton factory lately reported. H. A. Hall, W. C. McBride, W. A. Steed and others are the promoters.

Rome—Cannery.—H. D. Cothar & Co. have begun the erection of canning factory to be equipped for a daily capacity of 10,000 cans of fruit. (This enterprise was recently referred to.)

Rossville—Woollen Mill.—Plans and specifications have been prepared for the woollen mill to be built and equipped by the company reported in April as to be organized with J. L. Hutchison (secretary of the Park Woollen Mills) as president. The company will erect main building, hollow square, 236 feet and 200 feet on either side, partly one story high and partly two stories; weaving-room to be 80x200 feet, carding-room 64x136 feet, spinning-room 64x200 feet, dyehouse, etc., 54x200 feet. Previous statement of equipment was 720 spindles, 200 looms, etc., for manufacturing cammeres. Messrs. Huntingdon & De Sable of Chattanooga, Tenn., are the architects.

Savannah—Tin-can Factory.—H. W. Witcover has completed plans and will receive bids until June 18 for factory buildings previously reported to be erected by the American Can Co.; to be constructed of brick, concrete and steel; fireproof, and in some cases dampproof. The main building will be two stories, having a floor space of 70x216 feet; tin-plate room 40x70 feet, to be dampproof; lithograph room 40x70 feet, office 20x30 feet, boiler-room 26x30 feet, engine-room 30x30 feet; shipping platform; elevator 10 feet square with a lifting capacity of 6000 pounds.

Savannah—Drug Factory, etc.—American Manufacturing Co. has been incorporated with \$100,000 capital stock by J. J. B. Morel of Sylvan, Ga., and others to take over the patent-medicine and mineral-water plant of the Kalola Company, located at 125-130 Bay street. It is proposed to enlarge the plant and begin the manufacture of pure fruits, crushed fruits and syrups.

Thomasville—Sewerage System.—J. A. Jaudon is preparing plans, etc., for the construction of sewerage system for which \$25,000 bonds were previously reported voted. Contract for the construction will be let in about 30 days.

Valdosta—Mattress Factory.—Ousley & Co. will rebuild mattress factory recently reported burned. A building 25x75 feet will be erected.

Villa Rica—Knitting Mill.—Reports state that W. B. Candler, Sr., will establish hosiery mill.

KENTUCKY.

Buechel—Metal Tubing, etc.—Kentucky Culvert Manufacturing Co., reported incorporated last week with \$10,000 capital stock, will manufacture corrugated galvanized metal tubing in sizes from 12 to 84 inches in diameter for drainage or sewer purposes; daily capacity 400 linear feet. Machinery has been purchased. W. F. Fegenbush is president; Charles J. Fegenbush, vice-president and general manager.

Fulton—Wagon and Buggy Factory.—A. J. Kirkland has begun the erection of proposed wagon and buggy factory.

Lexington—Box Factory.—Waller Manufacturing Co. has been incorporated with \$15,000 capital stock to manufacture tobacco hogsheads, boxes and barrels. Frank F. Waller is president and general manager; Joseph K. Waller, vice-president, and J. P. Annear, secretary-treasurer.

Lexington—Street Improvements, Sewer, Gas and Water Mains.—Bell Place Addition Co. has let contract to the Home Construction Co. for constructing concrete sidewalks and curbs, macadamizing streets, building sewer, gas and water mains in the addition known as Bell Place.

Louisville—Bolt and Iron Works.—It is reported that George D. Todd has purchased plant of Louisville Bolt & Iron Co. at \$58,000 and will organize a company to operate same.

Louisville—Cold Storage, etc.—Chartered: Elmer Davis & Co., with \$100,000 capital stock, by T. L. Block, Charles Springer, F. B. Horssman, W. G. Ennen and associates.

Morehead—Construction Company.—Snyder Construction Co. has been incorporated with \$10,000 capital stock by Guy Snyder, G. H. Gearhart, Heber H. Straw of Clearfield, Pa.; A. J. Levy of Philadelphia, Pa., and Robert K. Winn of Mt. Sterling, Ky.

Mossey Bottom—Coal Mines.—Wagner Coal Co., reported last week under Bramwell, W. Va., as being organized with \$10,000 capital stock, will develop coal properties in Pike county. Main office, Bramwell, W. Va.*

Paducah—Hardware Company.—L. W. Henneberger, J. W. Agnew and others have incorporated the L. W. Henneberger Company with \$10,000 capital stock.

Stanton—Mineral Lands.—Elkatawa Fuel Co. has been incorporated with \$60,000 capital stock by J. O. Patrick of Stanton, Carl G. Holmes of Columbus, Ohio; C. Brower and F. G. Ott of Lexington, Ky., to develop coal, oil, gas and other mineral lands.

LOUISIANA.

Arcadia—Timber Development.—Reports state that John T. and Charles D. Pierson of Indiana have purchased from C. R. and A. P. Mower of Rockford, Ill., 15,000 acres of timber land in Bienville parish, and will erect saw-mills for development of tract.

Boyce—Hardwood and Cypress Mill.—Boyce Realty Co. is reported as arranging to erect a mill to saw hardwood and cypress timber.

Houma—Oyster-packing Plant.—Pelican Lake Oyster & Packing Co., recently incorporated with \$100,000 capital stock, has completed organization with Dr. L. H. Jastremski, president and treasurer; Edmund McCollam, vice-president, and J. A. Daspit, secretary.

Lake Arthur—Saw-mill.—Phoenix Lumber Co. has been incorporated with \$10,000 capital stock. Sam Marquart is president; George E. Streater, vice-president, and John B. Streater, treasurer and general manager.

Lions—Sugar Factory.—Ozemie Labiche has begun rebuilding sugar factory recently burned.

New Orleans—Flour Mill.—Jefferson Construction Co., Birmingham, Ala., has contract to erect flour mill for the H. T. Lawler Milling & Trading Co., previously mentioned; building to be 105x67 feet, five stories and monitors; reinforced concrete; concrete pilings; steam heat; electric lights; cost \$39,900 without machinery, boilers, etc.; Mackenzie & Goldstein, 407 Tulane-Newcomb Building, architects.

New Orleans—Naval Stores.—Hancock Naval Stores Co., Ltd., has been incorporated with \$400,000 capital stock. W. B. Gilliam is president; H. H. Gordon, vice-president, and J. R. Grimshaw, secretary-treasurer.

New Orleans—Stock-food Factory.—It is reported that the Lawrence Feed Co. of Crowley, La., manufacturers of stock feed, will establish branch factory.

New Orleans—Tank Storage and Transportation Company.—New Orleans Tank Storage & Transportation Co. has been organized with \$100,000 capital stock. George R. Bernard is president; Samuel Morel, vice-president; Gilbert Hattier, secretary-treasurer.

New Orleans—Coffee-roasting Plant.—Orlancho Coffee Co., Ltd., has been incorporated with \$50,000 capital stock. W. B. Burkenroad is president; Sam O. Leblanc, vice-president; N. Pfeifer, secretary, and Jake F. Goldsmith, treasurer.

New Orleans—Metal-bed Factory.—Orleans Metal Bed Co., Ltd., has been organized with \$75,000 capital stock to take over, enlarge and operate the iron and spring bed factory of Magee & Dow. J. M. Sherrouse is president; William D. Dow, vice-president and manager, and C. M. Sherrouse, secretary.

Shreveport—Table Factory.—Chartered: Montgomery Folding Table Co., with \$50,000 capital stock. J. W. White is president; A. G. Chatwin, vice-president; W. R. Montgomery, secretary and general manager, and Sam Chatwin, treasurer.

St. Martinsville—Canal.—Cypress Island Drainage District Board will construct a canal six to seven miles long and 45 feet wide at a cost of \$35,000. Plans and specifications are being completed and contract will shortly be let. J. G. Brouard is secretary.*

Washington—Irrigation Canal.—Joseph Haefner and A. B. Hess of Lancaster, Pa.; Benjamin W. Haines of West Chester, Pa., and other Pennsylvania capitalists are making investigations with a view to forming company with \$1,600,000 capital stock for the construction of a 30-mile irrigation canal from Washington across St. Landry parish to Mamou Prairie for the irrigation of rice lands. It is stated that the construction of

the proposed canal will open about 25,000 acres of fine rice lands. The Union Rice & Irrigation Co. is mentioned in connection with the project, and it is reported that work of construction will begin within 60 or 90 days. J. Franklin Schell and L. E. Littell of Opelousas, La., have the project in charge.

Winnfield—Road Improvements.—A. J. Hays, grading engineer, is reported as arranging preliminaries for the construction of proposed turnpike 1700 yards long across Durgemont swamp for Winn county; cost \$14,000.

MARYLAND.

Baltimore—Printing Plant.—The Young & Selden Company, printers and lithographers, 5 North Howard street, will hold meeting of stockholders for the purpose of increasing its capital stock from \$50,000 to \$100,000.

Baltimore—Foundry.—It is reported that A. Welskittel & Son, founders and stove manufacturers, 2000 Allegheny street, are erecting an addition 60x100 feet to their foundry, and are also making plans for another new foundry, on which estimates on construction will soon be asked.

Baltimore—Office Specialties.—The Sinclair Manufacturing Co. has been incorporated with capital stock of \$10,000 to manufacture patented circular lettergraph machine by Louis P. Elsenberg, Jr., Wm. S. Belding, 15 Hopkins Place; Arthur S. Zell, Maryland and Mt. Royal avenues; Reginald S. Opie and J. Q. H. Smith, Jr., Galtner Building, 111 North Charles street.

Baltimore—Mining.—The North Star Mining Co. has been incorporated with capital stock of \$1,000,000 to acquire and operate mines by Henry C. Garthe, 28 East Baltimore street; Max Kolmer, G. Frederick Kranz, northwest corner Charles and Fayette streets; George A. Sander, B. R. Koerling, George W. Warner and Otto P. Steinwald.

Baltimore—Laundry.—Spring Grove Asylum, Dr. J. Percy Wade, superintendent, Catonsville, has awarded contract to George Bunnecott & Son, 305 St. Paul street, Baltimore, for the construction of two-story brick laundry building 32x61 feet; J. Appleton Wilson, architect, Law Building, Courtland near Lexington street.

Cumberland—Natural-gas Mains.—City has granted franchise to the West Virginia Central Gas Co., Howard V. Thomas, Buffalo, N. Y., president, to furnish the city with natural gas. Arrangements will be made at once for laying the necessary mains, the gas to be piped from the Lewis county (W. Va.) fields. It is estimated that between \$300,000 and \$400,000 will be expended.

Cumberland—Publishing.—Chartered: The Union News-Leader Co., with \$5000 capital stock, by George W. Stevens, G. F. Young, B. F. Walters and others, to continue the publication of the Union News-Leader.

Midland—Coal-mining.—Cumberland & George's Creek Coal Co., reported incorporated last week under Cumberland, Md., will develop 1000 acres of coal land on George's creek near Midland and will install equipment for daily output of 1000 tons. About \$50,000 will be expended. The temporary officers are David J. Lewis, president; Benjamin A. Richmond, 10 Water street, vice-president, both of Cumberland, Md.; Frederick S. Hanna, secretary, and Arthur L. Bailey, treasurer, both of New York, N. Y.

Salisbury—Street Improvements.—City will expend \$50,000 in improving streets. Thomas Perry is president of the street commission.

MISSISSIPPI.

Auburn—Cotton Gin, Grist Mill and Saw-mill.—Auburn Mercantile Co. is considering the installation of cotton gin, grist mill and saw-mill.*

Batesville—Cotton Mill.—Batesville Yarn & Cordage Co. will be organized with capital stock of \$30,000 by J. C. Price and others to build the cotton mill lately reported. Yarn, rope and twine will be manufactured, and a 150-horse-power steam plant will be operated. No contracts for machinery or buildings have been closed.*

Brookhaven—Water-works and Electric Light Plant.—City is considering making improvements to water-works and electric-light plant, installing additional equipment for doubling the present capacity. About \$30,000 will be expended. Address The Mayor.

Brooksville—Water-works.—Town is arranging for boring artesian well, constructing tank and laying water mains, for which \$5000 is available. Plans and specifications will be considered July 3; J. N. McMorries, town clerk.*

Columbus—Planing Mill.—Falk & Stolzer of St. Louis, Mo., have purchased site on which to erect planing mill; amount to be invested \$12,000.

Franklin County—Timber Development.—It is reported that Webber & Coffin of Boston,

Mass., have purchased through Thos. Baker of Iuka, Miss., 125,000 acres of timber lands in Franklin and Itawamba counties for development purposes.

Jackson—Fertilizer Factory.—Planters' Fertilizer Co. has been organized with \$50,000 capital stock by A. H. Longino, E. B. Poole, J. C. Longstreet and others.

Lucedale—Lumber Company.—Koone Lumber Co. has been incorporated with \$30,000 capital stock.

Lyman—Saw-mill, etc.—Ingram-Day Lumber Co. contemplates making improvements to saw-mill, erecting store building, cold-storage plant, hotel, cottages, installing water-works system, extending railway, etc.

Merrill—Hardwood Mill.—Rogers Hardwood Lumber Co. has been organized. It has purchased, will improve and operate the plant of the J. G. Taylor Lumber Co.

Pine View—Lumber Mill.—W. J. C. Gaar and W. B. O'Neal have reorganized as Gaar & O'Neal and resumed the manufacture of long-leaf yellow-pine lumber. It is proposed within the course of the year to secure another location and install new and modern equipment.

Summit—Brick Works.—Summit Brick Manufacturing Co. is the title of company previously reported to be organized with \$25,000 capital stock to establish plant with a daily capacity of 50,000 bricks. Dr. W. W. Moore is president; J. T. Covington, vice-president; S. M. Covington, secretary; H. T. Gracey, treasurer, and W. A. Schilling, general manager.

Upshaw—Cotton Gin, etc.—Incorporated: Louise Gin & Seed Co., with \$6000 capital stock.

Vicksburg—Cotton-growing and Manufacturing, etc.—C. C. Barbour & Co. are reported as proposing the organization of a company with capital stock of \$5,000,000 for the purpose of buying delta lands, growing cotton, manufacturing cotton and operating cotton-oil mills.

MISSOURI.

Clyde—Lumber Company.—E. L. Omalley, Henry Schacht, John Allen and others have incorporated the Clyde Lumber Co. with \$3000 capital stock.

Kansas City—Engineering and Construction Company.—Fann W. Freeborn, Michael D. McHugh, Walter H. Kiniskern and others have incorporated the Freeborn Engineering & Construction Co. with \$50,000 capital stock.

Kansas City—Manufacturing.—Chartered: George W. Johnson Manufacturing Co., with \$5000 capital stock, by George W. Johnson, F. J. Johnson and W. J. Johnson.

St. Joseph—Gas Stoves.—W. H. Jones, W. T. Elm, A. A. Stewart and others have incorporated the American Gas Stove Co. with \$50,000 capital stock.

St. James—Preserving and Pickling Factory.—Incorporated: St. James Preserving & Pickling Co. with \$400 capital stock, by A. D. Walton, L. N. Martin and others.

St. Louis—Razors, Brushes, etc.—Shumate Razor Co. has incorporated with \$100,000 capital stock to manufacture razors, strops, brushes, toilet goods, etc.; incorporators, Joseph M. Shumate, Albert L. Teagarden and associates.

St. Louis—Sewerage System.—Hoffman Hogan Construction Co. has contract at \$174,575 for the Harlem creek sewer.

St. Louis—Box Factory.—Otto Moser is completing arrangements for the erection of proposed box factory; four stories, \$3x88 feet; cost \$22,000.

St. Louis—Telephone Anchors.—Everstick Anchor Co. has incorporated with \$20,000 capital stock to manufacture anchors for anchoring telephone and telegraph lines, etc.; incorporators, Jasper Blackburn, J. R. Shifer, Harry Wallbrunn, all of Chillicothe, Mo., and associates.

St. Louis—Varnish and Paint Factory.—Chartered: Lampel-Schlegel Manufacturing Co., with \$3000 capital stock, by Franklin L. Lampel, William Lampel, Edward S. Dolan and others.

St. Louis—Wire-rope Plant.—Broderick & Bascom Rope Co., mentioned last week as having let contract for additional buildings, will erect two structures 175x65 feet. About \$15,000 will be expended in buildings and equipment; Max Umbrecht, Seattle, Wash., architect, and E. P. Frederick, St. Louis, Mo., engineer in charge. The company manufactures aerial wire-rope tramways, wire rope and cordage; main office, 805-809 North Main street.

St. Louis—Shirt Factory, etc.—Incorporated: Manhattan Shirt & Waist Manufacturing Co., with \$12,000 capital stock, by John H. Bulte, Adolphus Rosenfeld and others.

St. Louis—Sewerage System.—City will vote June 12 on \$1,500,000 bond issue provided for

in proposition No. 8 of the bond-issue ordinance for the construction and reconstruction of public sewers and the purchase of land. Address Board of Sewer Commissioners.

NORTH CAROLINA.

Asheville—Veneer Factory.—Reports state that the J. S. Bailey Company will erect a veneer factory.

Asheville—Woodworking Plant.—Ohio Manufacturing Co. has been incorporated with \$25,000 capital stock and privilege of increasing to \$50,000 for the manufacture of oak and hickory carriage and wagon woodwork. It is stated that the company is completing the erection of a dimension mill at Whittier, N. C., which will be put in operation within 10 days, and will also arrange for the erection of other mills in North Carolina, Tennessee and Kentucky. A. F. Hall is president; L. E. Wilson, vice-president; F. Littleford, secretary-treasurer, and S. J. Taylor, general manager.

Burlington—Bottling Works.—C. L. Wright, C. H. Murray, J. M. Cooke and others have incorporated the Bohbee Company with \$100,000 authorized capital stock.

Charlotte—Bridge.—Robert L. Abernethy and associates are considering the construction of a bridge across the Catawba river at Rozelle's ferry, 12 miles north of Charlotte. It is estimated that about \$8000 will be required.

Elizabeth City—Lumber Company.—Foreman-Blades Lumber Co. has been incorporated with an authorized capital stock of \$150,000 by J. W. Foreman, L. S. Blades and others. It has purchased and will operate the planing mill of the Blades Lumber Co. and the plant of the Elizabeth City Lumber Co.

Fayetteville—Cotton Mill.—Victory Manufacturing Co., reported at length last week, has engaged Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., as architects-engineers in charge of building the plant. Contracts have been awarded for the cotton machinery (25,000 spindles, 800 looms, etc.), but not for mill supplies, shafting, fire-protection equipment, etc. Electric drive from local transmission will be used; H. W. Lilly, president of company.*

Gold Hill—Copper Mines.—Southern Copper Co. has been organized with \$3,000,000 capital stock. A. M. A. Richardson of Paterson, N. J., is president; Otto Germer of Cincinnati, Ohio, vice-president, and W. M. Richardson of New York, N. Y., secretary. Mr. Richardson and associates were mentioned last week under Salisbury, N. C., as organizing company for the development of mining properties in Rowan county.

Graham—Cotton Mill.—Bellemont Cotton Mills is reported to have awarded contracts for additional buildings and machinery.

Henderson—Street-paving.—J. L. Currin has contract at \$1.15 a square yard for laying 6500 square yards of granolithic paving.

High Point—Upholstery.—Chartered: Kearns Upholstering Co., with an authorized capital stock of \$25,000, by O. E. Kearns, J. W. Kearns, G. H. Kearns and others.

Kelford—Bottling Works.—The establishment of bottling works is contemplated, and George T. Parker can give information.*

Lexington—Mirror Factory.—Lexington Mirror Co. is the title of company previously reported to be incorporated with \$15,000 capital stock by W. H. Walker, D. F. Conrad, J. R. McCrary and others, to manufacture mirrors. Site has been secured on which to erect plant.

Lexington—Ice and Fuel Company.—Lexington Ice & Fuel Co. has been organized to operate four-ton ice plant, deal in fuel, etc. A frame building 40x60 feet will be erected. Dr. J. M. Riley is president; O. H. Everhart, secretary-treasurer, and A. L. Couch, general manager. This enterprise recently referred to.

Raleigh—Paper Cutters, etc.—Vertical Paper Cutter Co. has incorporated with an authorized capital stock of \$25,000 to manufacture paper cutters and all kinds of mechanical devices for holding and using wrapping paper, bags, boxes, etc., made of paper; incorporators, Henry E. Litchford, H. W. Jackson, Henry McKee Tucker and associates.

Roanoke Rapids—Cotton Mill.—Roanoke Rapids Power Co. has the capital subscribed for the organization of a \$500,000 cotton-mill company, but will not organize this mill company until after its contracts for electric-power plant are awarded. This proposed mill and the company's water-power-electrical developments were mentioned last week and last September.

Roanoke Rapids—Steel Bridge.—Roanoke Rapids Bridge Co., previously reported as organized with \$50,000 capital stock to construct a steel bridge across the Roanoke river near Roanoke Rapids, has completed organi-

zation with H. C. Cooper, president; John L. Patterson, vice-president, and Dr. S. B. Pierce, secretary-treasurer. Contract for the construction of bridge has been let to the Roanoke Bridge Co. of Roanoke, Va.; cost \$25,000.

Rowland—Manufacturing.—L. Z. Hedgpeth, J. W. McKay and associates have incorporated the Rowland Manufacturing Co. with an authorized capital stock of \$20,000.

Sanford—Woodworking Plant.—Sanford Sash & Blind Co. has reorganized and will erect building, which will be equipped for increasing present capacity.

Scottsville—Street-paving.—Arrangements have been completed for laying approximately 1600 square yards of cement sidewalk, 1300 linear feet of cement curb, etc., and bids for the work will be received until June 15. Jackson Beall is chairman of street committee.*

Shelby—Timber Development.—Reports state that A. E. Cogbill of Boykin, Va., has purchased 23,000 acres of timber land in Cleveland, McDowell and Rutherford counties at \$150,000, which will be developed in connection with 6000 acres recently purchased in this vicinity. It is stated that about \$100,000 will be expended.

Spencer—Land Improvement.—Chartered: Endora Land Co., with \$24,000 capital stock, by J. W. Nicholson, C. B. Jordan and others.

Swepsonville—Cotton Mill.—Virginia Cotton Mills has awarded contracts for additional buildings and machinery. Company will add 300x100 feet to present structure, one story high, and eventually install 600 looms; present equipment 12,000 spindles and 300 looms. (This enlargement referred to last week.)

Washington—Amusement Company.—Washington Amusement Co. has been incorporated with an authorized capital stock of \$100,000 by B. W. Taylor, G. T. Leach, F. C. Mallison and associates.

Weldon—Winery.—Garrett & Co., main office, Norfolk, Va., whose winery was recently burned, will erect a temporary plant of galvanized corrugated iron, installing 100,000 gallons of oak cooperage; later it is proposed to rebuild the old structure along modern lines, the entire building to be of armored concrete, fireproof in every particular.*

SOUTH CAROLINA.

Charleston—Candy Factory.—Marjenhoff Company will hold a meeting July 3 to consider increasing capital stock from \$30,000 to \$50,000.

Clinton—Water-works.—Thornwell McMasters of Columbia, S. C., has contract to construct water-works previously mentioned; Charles C. Wilson, 1302 Main street, Columbia, S. C., engineer in charge.

Congaree—Mineral Company.—Pringle T. Youmans and W. S. Monteith have incorporated the Congaree Mineral Co. with \$25,000 capital stock.

Georgetown—Lumber Company.—Incorporated: Oak Hill Lumber Co., with \$10,000 capital stock, by F. W. Young and L. Brinkley.

Greenville—Iron Works.—Mountain City Foundry & Machine Co. has purchased the plant of the Palmetto Iron Works, R. M. McDonald, proprietor, which will be consolidated with its foundry and machine business, enlarged and operated.*

Marion—Agricultural Implements, Woodworking Plant.—A company will be organized with \$15,000 capital stock and privilege of increasing to \$25,000, with W. J. Montgomery of Marion, S. C., president, and S. A. Lewis of Latta, S. C., superintendent and general manager, to manufacture agricultural implements, doors, sash and blinds. A full line of building materials will also be carried. A building has been secured in which to locate plant, which will be incorporated as the Lewis Plow Works or the Marion Agricultural Works. Mr. Lewis was mentioned recently as to remove plant from Latta to Marion and organize company.*

Pickens—Cotton Mill.—The Pickens Mill, reported organized last month, has engaged Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., to prepare plans and specifications for the proposed plant. Equipment will include 15,000 spindles and 450 looms, which have been purchased, but steam plant, shafting, fire-protection apparatus, etc., have not been bought. Capital stock is \$200,000; W. M. Hagood of Easley, S. C., president and treasurer.*

Woodruff—Paper-box Factory.—J. R. Westmoreland contemplates establishing paper-box factory, and wants to interest an experienced manufacturer.

TENNESSEE.

Chattanooga—Sewerage System.—Board of Public Works has awarded contract for im-

provements in Ninth ward (recently mentioned) as follows: Guild & Co., work on sewers Nos. 1 and 3 and laterals to fire hall and school building at \$35,363.67, and to the West Construction Co., work on sewer No. 2 at \$14,158.24.

Chattanooga—Broom Factory.—C. A. Geuning, J. T. Faulkner, J. W. Smith and others have incorporated the Eagle Brush & Broom Co., with \$10,000 capital stock; plant to be equipped for a daily capacity of 240 dozen brooms.

Cumberland Gap—Portland-cement Plant.—W. J. Oliver of Knoxville, Tenn., and J. H. Bartlett of Middlesboro, Ky., mentioned last week as considering the establishment of Portland-cement plant, will operate as the Tennessee Portland Cement Co., and will equip for a daily capacity of 2000 barrels. Details for the erection of building have not been arranged; W. W. Wallace, Knoxville, Tenn., consulting engineer.

Embreeville—Iron Furnace.—Embree Iron Co. will blow out the Embreeville furnace, which has been in operation 18 months, for the purpose of refining; annual capacity 50,000 tons of iron; main office, 71 Broadway, New York.

Fayetteville—Tobacco Factory.—It is reported that W. H. Ladd is organizing company with \$10,000 capital stock for the establishment of a tobacco factory.

Kenton—Grain Elevator and Feed Mill.—West Tennessee Grain Co. is the title of company recently reported organized with \$8000 capital stock by E. W. Parks, J. N. Moore and others.

Lynnville—Overall Factory.—R. H. Blow will establish overall factory.

Memphis—Cotton Compress.—H. H. Wainwright, Real Estate Trust Building, Philadelphia, Pa., and associates have purchased the Farmers' Compress and will operate same.

Memphis—Handle Factory.—L. M. Weathers has completed plans for handle factory to be erected by the Brown, Hinman & Huntington Company, and contract for construction will be let at once; cost \$35,000.

Memphis—Cotton Compresses and Warehouses.—Selden-Breck Construction Co. has contract to erect cotton compresses and warehouses for the Memphis Warehouse Co., previously reported to erect a co-operative system of compresses and warehouses to cost about \$500,000.

Memphis—Electric Plant.—It is reported that La Cledo Gas Co. of St. Louis, Mo., has purchased site 300x200 feet on which to erect \$60,000 electric plant; a separate company to be organized to operate the plant, and L. G. Van Ness, St. Louis, Mo., to be local manager.

Sparta—Flour and Corn Mill.—I. B. Mayberry and R. R. Richardson, mentioned last week as to establish flour and corn mill, will operate as the Town Creek Milling Co. A building 22x40 feet will be erected and equipped for a daily capacity of 50 barrels. Water-power will be used.

Winesap—Saw and Planing Mill, Grist Mill, etc.—T. L. Edmons & Sons will erect saw and planing mill, grist mill, etc., replacing plant recently reported burned; R. E. Smith, architect, and A. R. Edmons, engineer in charge.*

TEXAS.

Aldine—Creamery.—It is proposed to establish a creamery, and a committee has been appointed with O. Luthe, chairman, to consider the project.

Applegate—Saw-mill.—Texas & Ohio Lumber Co. has been incorporated with \$200,000 capital stock by H. D. Applegate, M. S. Duffie of Beaumont, Texas; A. P. Laughlin, J. R. Stone of Jefferson, Ohio, and others to erect and operate a saw-mill.

Beaumont—Oil Wells.—R. L. Young, J. S. Young and J. B. Daniels have incorporated the Young Oil Co. with \$12,000 capital stock.

Beaumont—Wallpaper Factory.—It is reported that the establishment of plant for the manufacture of brown-back wallpaper from rice straw is contemplated, and Thomas Brown is interested.

Beaumont—Saddlery.—E. J. Harvey Saddlery Co. has been incorporated with \$5000 capital stock by E. J. Harvey, R. D. Kent and R. A. Harvey.

Beaumont—Ice and Cold-storage Plant.—Beaumont Ice & Refrigeration Co., Joseph E. Carroll, president and general manager, will install a 300-kilowatt alternator.

Britton—Cotton Gin.—Farmers' Co-operative Gin Co. is the correct title of company reported incorporated last month with \$8000 capital stock. A four 70-saw cotton gin will be operated.

Dalhart—Wire-fence Tools.—W. B. Slaughter of Dalhart, C. E. Oakes of Amarillo, Texas, and associates have incorporated the

Curtis Wire Fence Tool Co. with \$25,000 capital stock.

Dallas—Lock and Dam.—Hubbard Building & Realty Co., Dallas, is lowest bidder at \$144,113.95 for the construction of lock and dam No. 6 on the Trinity river.

Ennis—Brick Works.—Ennis-Crisp Brick Co., reported organized last week under Crisp, Texas, will operate a four-mold-press brick plant; daily capacity 20,000.*

Farwell (P. O. Texline)—Lumber Company. Chartered: Farwell Lumber Co., with \$10,000 capital stock, by E. Shopbell, A. Shipley and M. C. Shopbell.

Fort Worth—Electric-power Plant.—The Rosen Heights Street Railroad Co. contemplates enlarging plant and installing additional equipment.

Fort Worth—Overall Factory.—Fort Worth Overall Co. has been incorporated with \$25,000 capital stock by B. A. Rose, L. C. Hollis and W. B. Paddock. A two-story concrete building is being erected in North Fort Worth. Electricity will be used to operate the machinery.

Fort Worth—Cottonseed-oil Mill.—Independent Cotton Oil Co. has been incorporated with \$75,000 capital stock by Ed Woodall, Neil P. Anderson and B. L. Anderson.

Galveston—Lumber Mill.—Liberty Hardwood Lumber Co., reported incorporated last week with \$150,000 capital stock, will take over and operate the plant of the Ranger Hardwood Export Co., with hardwood mill and 10,000 acres of timber land. Moritz Koppen is president; C. H. Moore, vice-president, and Julian Ranger, secretary-treasurer.

Houston—Coffee Roasting and Blending Plant.—A company has been organized with F. E. Pye, president; H. S. Fox, Jr., vice-president, and Ira Tisdale, secretary-treasurer, to take over and operate the coffee roasting and blending plant of Rosenberg Bros. Coffee Co. It is stated that the capacity will be doubled.

Houston Heights—Water-works and Electric-light Plant.—Chartered: Houston Heights Water & Light Co., with \$200,000 capital stock, by O. M. Carter, John A. Milroy and others.

Irving—Printing Plant.—Irving Printing Co. has been incorporated with \$2000 capital stock by S. P. Schulz, Otis Brown and others.

Lisbon (P. O. Dallas)—Cotton Gin.—Lisbon Gin Co. has been incorporated with \$6000 capital stock by W. J. Worsham, J. D. Givens and H. H. Gracey.

Lufkin—Boiler and Machine Works.—Lloyd Boiler and Machine Works, J. A. Lloyd, proprietor, will probably rebuild plant reported burned recently at a loss of \$6000.*

McGregor—Oil Mill, etc.—Incorporated: McGregor Oil & Manufacturing Co., with \$50,000 capital stock, by S. A. Cavitt, S. Amsler and others.

Marble Falls—Electric-light Plant.—Reed & Badger, it is reported, will install electric-light plant.

Merkel—Amusement Company.—Western Amusement Co. has been incorporated with \$12,000 capital stock by C. C. Cody, J. J. Coggins and C. W. Harkrider.

Memphis—Lumber Company.—Wallace Bros. Lumber Co. has been incorporated with \$20,000 capital stock by W. H. Wallace, A. R. Wallace and others.

Sherman—Cotton Gin.—Planters' Gin Co. has been incorporated with \$25,000 capital stock by J. A. L. Wolfe, C. W. Ordner and W. R. Brents.

Stamford—Realty Company.—Chartered: Stamford Realty & Investment Co., with \$10,000 capital stock, by G. L. Davenport, J. H. Rumpass and others.

Sunset—Cotton Gin.—W. M. Armstrong, W. P. Armstrong and others have incorporated the Sunset Gin Co. with \$8000 capital stock.

Texline—Lumber Company.—North Texas Lumber Co. has been incorporated with \$100,000 capital stock by W. M. Schufeldt and J. C. McCausland.

Waxahachie—Cotton Mill.—Waxahachie Cotton Mills will open bids June 11 for erection of addition to present building according to plans on file. This company was reported some months ago as to double its 5000-spindle and 150-loom plant, and presumably this addition is to accommodate the new machinery.

West Point—Kaolin Mine.—It is reported that Charles Efron and New York capitalists have begun the development of kaolin properties near West Point.

Whitewright—Cotton Gin.—L. S. Sears, John Everheart, E. E. Edens and others have incorporated the Farmers' Co-operative Ginning Co. with \$5500 capital stock.

Winnisboro—Lumber Company.—R. G. Andrews Lumber Co. has been incorporated with \$50,000 capital stock by R. G. Andrews, A. D. Norris and Ben Stokes.

VIRGINIA.

Bedford City—Asbestos Mining and Manufacturing.—The American Asbestos Co., 43-49 Exchange Place, New York, and the Mark W. Maraden fireproof building-material interests of Philadelphia, Pa., have consolidated, and the American Asbestos & Fireproofing Co. has been organized with \$16,500,000 capital stock to take over the lands, plants, patents, etc., of the two former companies, which include 8000 acres of asbestos and mica lands in Bedford and Franklin counties, Virginia; a mill at Bedford City with a daily capacity of 100 tons of fiberized asbestos, and the Maraden plant in Manayunk, Philadelphia, Pa., with a capacity of 200 tons of fireproof building material daily. Plans and specifications are being prepared for another mill to be built in Virginia on the line being constructed through the company's properties by the Tidewater Railway. Webster Blocker of New York city is president; A. M. Higgins of Terre Haute, Ind., vice-president; R. B. Clark of Passaic, N. J., secretary; Franklin Henshaw of Scranton, Pa., treasurer, and Mark W. Maraden of Philadelphia, Pa., general manager. The general offices of the company are in the Wall Street Exchange Building, New York. Warren J. Flick is engineer in charge of construction.

Bristol—Coal-mining.—Clinchfield Coal Corporation has been organized with an authorized capital stock of \$10,000,000. It has purchased the coal properties of Cranes Nest Coal & Coke Co., Dawson Coal & Coke Co. and Clinchfield Coal Co. in Buchanan, Dickenson, Russell, Scott and Wise counties, aggregating 350,000 acres. Large coal operations are now located at Toms Creek, Wise county, and Dante, Russell county, and the company will arrange to make developments preparatory to shipment. C. C. Chapin is president; T. W. Wortham, vice-president, both of Richmond, Va., and J. Norment Powell of Bristol, Va., secretary-treasurer. For full particulars address the secretary.

Charlottesville—Hardware Company.—Charlottesville Hardware Co. has been incorporated with \$100,000 capital stock. C. H. Walker is president; J. Payne Carroll, vice-president, and A. N. Adams, secretary-treasurer.

Chatham—Water-works.—Bids will be opened June 15 for constructing water-works; J. H. Hargrave, Jr., mayor; J. N. Ambler, Salem, Va., engineer.*

Columbia—Handle Factory.—H. P. Baker & Co. have established plant and begun the manufacture of white hickory axe, pick and hammer handles.

Durmid—Machine Shop.—Jones & Adams have contract and work has commenced on the erection of proposed machine shop for the United Machine Co.; two stories, 50x250 feet, of brick.

Max Meadows—Coal Mines.—Chartered: Cumberland Corporation, with H. S. Trout, president; James P. Woods of Roanoke, Va., vice-president, and Charles I. Wade of Christiansburg, Va., secretary-treasurer; capital stock \$40,000,000. For full particulars address J. Norment Powell, Bristol, Tenn.

Newport News.—Chartered: American Willow Furnace Corporation, with W. A. Post of Newport News, president; A. W. Stahl of Hampton, Va., vice-president, and F. J. Gauntlett of Newport News, secretary-treasurer.

Norfolk—Plaster Mill.—Dabney Brick Co., Geo. H. Dabney, president, Newport News, Va., will probably build a plaster mill on site, recently purchased, having 600 feet of railroad frontage.

Norfolk—Realty Improvements.—Chartered: Riparian Realty Co., with an authorized capital stock of \$15,000. L. J. Upton is president; Thomas H. Upton, vice-president, and A. Gordon Stephenson, secretary-treasurer.

Norfolk—Land Improvement.—Incorporated: Highlands of Norfolk Corporation, with Sam W. Bowman, president; W. A. D. Cole, vice-president, and W. F. Lee, secretary-treasurer.

Norfolk—Electric-power Plant.—Well Bros. Company, New York, N. Y., and 410 Union Trust Building, Baltimore, Md., are estimating on the construction of electric-power plant previously reported to be built by Norfolk & Portsmouth Traction Co.; bids to be opened June 6; Sargent & Lumley, Chicago, Ill., consulting engineers.

Norfolk—Land Improvement.—Cole-Brandt Real Estate Co. has been incorporated with \$10,000 capital stock. Joseph Brandt is president; W. D. Cole, secretary-treasurer.

Norfolk.—Chartered: Willoughby View Corporation, with an authorized capital stock of \$25,000. D. P. Blount is president, and R. F. Hanbury, secretary-treasurer.

Norfolk—Lithographing and Printing Plant.—Albert Hess, publisher Jamestown Exposition Magazine, will establish a printing, lithographing and binding plant. About

\$25,000 will be invested. Contracts have been let.

Orange—Brick Works, Building-material Factory, etc.—H. E. Eddins, mentioned last week as to establish pressed-brick and building-material plant, is installing machinery preparatory to operating; later it is proposed to add a laundry and ice plant, which will require a steam engine.*

Petersburg—Drug Company.—Chartered: O. P. Harde Drug Co., with \$15,000 capital stock. T. F. Knox is president; W. E. Poole, vice-president, and C. L. Guthrie, secretary-treasurer.

Pine Beach—Electric Plant and Ice Factory.—W. E. Russell Corporation, W. E. Russell of New York, N. Y., president and treasurer, will establish electric-power and ice-manufacturing plant to have a capacity of 15 kilowatts and a daily output of 20 tons of ice. M. R. Moon, electrical engineer, of Cleveland, Ohio, will supervise the construction; capital stock \$50,000.

Richmond—Paper-box Factory.—Chartered: Johnston & Co., with an authorized capital stock of \$50,000. Coleman Johnston is president; R. H. Stoltz, vice-president, and W. Harrison Blair, secretary-treasurer.

Richmond—Packing Plant.—W. S. Forbes & Co. have begun the erection of proposed packing plants. Two buildings are being erected, each six stories, 86x162 feet and 50x263 feet, respectively. Equipment will be installed for doubling the present capacity.

Salem—Packing Machine.—Comas Packing Machine Co. has been incorporated with \$150,000 capital stock by John E. Allemong, F. H. Chalmers, W. W. Ballard and others.

Shenandoah—Canning and Preserving Factory.—Shenandoah Canning & Preserving Co. has been incorporated with \$15,000 capital stock. G. A. Shuler of Shenandoah is president; G. L. Kite of Elkton, Va., vice-president, and W. S. Long of Shenandoah, secretary-treasurer.

South Boston—Saddlery Factory.—B. J. Griffin and E. J. Griffin contemplate rebuilding saddlery factory reported burned.

Stewartsville—Telephone and Telegraph System.—Bedford County Telephone & Telegraph Co. has been incorporated with an authorized capital stock of \$5000. R. L. Dearing of Vinton, Va., is president; J. W. Meador, vice-president; J. A. Jeter, general manager, and A. L. Dickinson, treasurer, all of Stewartsville.

Suffolk—Street-paving.—Southern Contracting Co., Norfolk, Va., has been awarded contract for paving with vitrified brick and Warren Bros. Company of Boston, Mass., for bitulithic paving, referred to last week.

Tazewell—Coal Mines.—Chartered: Raven Collieries Co., with an authorized capital stock of \$40,000. J. N. Harman is president.

WEST VIRGINIA.

Branchland—Coal Company.—F. B. Ensley, C. L. Porter, S. H. Moore, H. C. Simms and G. M. Cohen of Huntington, W. Va., have incorporated the Branchland Coal Co. with \$30,000 capital stock.

Braxton County—Coal Mines.—Elk Valley Coal Co., Connellsville, Pa., will develop 6000 acres of coal lands which it owns in Braxton and Clay counties, but probably not before next spring. C. S. Peterson is secretary.

Charles Town—Granite Quarry.—J. Shirley Smith and associates are arranging for opening granite quarry in Virginia on the Norfolk & Western Railroad.

Clarksburg—Coal Mines.—J. V. Thompson of Uniontown, Pa., and associates are arranging for the development of 60,000 acres of coal land which they own in Harrison county.

Elkins—Cold-storage Plant.—It is reported that Schwenger-Klein Company of Cleveland, Ohio, will establish cold-storage plant to cost \$75,000.

Fairmont—Foundry.—W. D. Goodwin, J. E. Nichols, S. R. Holbert and others have incorporated the Fairmont Foundry Co. with \$25,000 capital stock.

Hallsville—Coal Mines.—Superior Pocahontas Coal Co. has been organized with \$500,000 capital stock. It has purchased Black-Stone Consolidated Coal Co., Helena Coal Co., Hennitz Mining Co. and Davy Crockett Coal & Coke Co., embracing leases for about 4000 acres of Pocahontas coal measures. The lands are contiguous; present capacity 15,000 tons per month. It is proposed to build a central electrical plant for equipping the mines with haulage and machine-mining outfit, etc., and arrange for an annual output of 100,000 tons. Additional tenement-houses will be erected. Justus Collins of Charleston, W. Va., is president; C. J. Milton, Cincinnati, Ohio, vice-president; P. J. Riley, Hallsville, treasurer and manager, and J. A. Lathin, Charleston, W. Va., secretary.

Hinton—Oil and Gas Wells.—Summers Oil & Gas Co. has been incorporated with an authorized capital stock of \$50,000 by W. H. Warren, P. H. Graham, G. O. Quesenberry and others.

Milton—Oil and Gas Wells.—Milton Drilling Co. has incorporated with \$10,000 capital stock to drill for oil and gas; incorporators, G. W. Harshbarger, J. E. Erwin and associates.

Morgantown—Contracting Company.—Zevely-Caste Construction Co. is the correct title of company reported incorporated recently with \$50,000 capital stock to act as general contractors, masonry-work contractors, etc. H. J. Zevely is president and general manager.

Parkersburg—Glass Factory.—Parkersburg Plate Glass Co., previously reported as being organized with \$500,000 capital stock to take over and operate the plant of the Colonial Plate Glass Co., has effected permanent organization with Dr. A. H. Kunst, president and general manager; M. R. Pepper, general superintendent, and O. S. Hawkins, secretary.

Philippi—Land Improvement.—S. A. Moore, C. E. Robinson, S. H. Butcher and others have incorporated the Lawson Land Co. with \$100,000 capital stock.

Romney—Orchard Company.—A. B. C. Whitaker, H. B. Gilkeson and others have incorporated the Ridge Dale Orchard Co. with \$70,000 authorized capital stock.

Shininston—Telephone System.—Shininston Union Telephone Co. has been incorporated with an authorized capital stock of \$6000 by A. M. Hess, C. L. Lyon and others.

Wheeling—Curbing.—T. W. Stobbs is lowest bidder at 23½ cents a lineal foot and has been awarded contract for furnishing and placing curbing on the Wheeling and Fairmont pike.

INDIAN TERRITORY.

Berwyn—Hydro-electric Plant.—Washita Electric Power Co. has been organized with \$250,000 capital stock by Thomas C. Whitfield of Berwyn, Edward J. O'Bryan of Atlanta, Ga., and Wm. H. O'Bryan of Gainesville, Texas, for the proposed development of the Washita river in the Arbuckle mountains, five miles from Berwyn. It is proposed to build a power plant at this point where the river passes through the mountains, forming a series of continuous rapids over a mile down the canyon. An eight-foot dam will be constructed above the rapids connecting with a series of canals that will convey sufficient water to the power-house located below the rapids, affording a 60-foot head and developing 20,000 horse-power for transmission by electricity.

Claremore—Gas Wells.—A. W. Leonard, Randolph Shirk and J. H. Evans have incorporated the Caney River Gas Co. with \$500,000 capital stock.

South McAlester—Publishing.—Capital Printing Co. has been organized with J. J. McAlester, president; Melvin Cornils, vice-president, and George Miller, secretary and superintendent. The plants of the Daily and Weekly Capital and the Miller Printing Co. will be merged.

Tahlequah—Water-power-Electrical Plant.—H. von Schon of Detroit, Mich., has been engaged to make examination and prepare report on the development of the water-power on the Illinois river near Tahlequah by the Illinois River Light & Power Co., previously reported incorporated with Frank R. Lewis, president. It was previously stated that the company proposed to construct a tunnel about 6000 feet long and 10 feet in diameter, turning the present Illinois river through a hill, thereby obtaining a fall of 55 feet with a minimum flow of water of 12,600 cubic feet per minute and a maximum flow of the full capacity of tunnel under a head of six feet. It is estimated that between 1000 and 1500 horse-power will be generated and transmitted by electricity to adjoining towns for light and power purposes.

Tishomingo—Water-power-Electrical Plant.—Pennington Water-Power Co., Stephen B. Treadwell, secretary, is having surveys made by H. von Schon of Detroit, Mich., for the proposed development of the water-powers of the Blue and Pennington rivers.

Tulsa—Building Company.—Southern Building Co. has been incorporated with \$50,000 capital stock by J. W. Shackleton, George Middleton and others.

OKLAHOMA TERRITORY.

Agra—Grain and Elevator.—C. C. Layman, I. C. Pierce and others have incorporated the I. C. Pierce Grain & Elevator Co. with \$15,000 capital stock.

Anadarko—Telephone System.—Thomas Updike, Thomas L. Cecil, L. L. Grissom and

others have incorporated the Tonquawa Telephone Co. with \$40,000 capital stock.

Burbank—Land Improvement.—Chartered: Burbank Building & Improvement Co., by Anthony Carlton, Charles Donovan and I. R. McCorkle.

Clyde—Elevator.—Clyde Elevator Co. has been incorporated with \$3000 capital stock by G. B. Bluebaug, F. P. Priftt and others.

Cordell—Oil, Gas and Mineral Lands.—Farmers' Oil, Gas & Mineral Co. has been incorporated with \$5000 capital stock by M. B. Brown, W. S. Petty, A. J. Gafford and associates.

Davidson—Grain Elevator.—Chartered: Red River Grain & Elevator Co. with \$5000 capital stock, by J. B. Rinkle, Will Bell and J. E. Thrush.

Dill—Gin and Elevator.—Chartered: Orient Gin & Elevator Co., with \$50,000 capital stock, by J. W. Morrison of Dill, J. W. Kerley and W. H. Morrison of Cordell, O. T.

El Reno—Cannery.—Incorporated: El Reno Canning Co., with \$12,000 capital stock, by W. E. Fryberger, C. D. Tinklepaugh, Charles L. Engle and Fred Sickles.

End—Grain Company.—End Wholesale Grain Co. has been incorporated with \$10,000 capital stock by J. H. Shaw, W. H. Randells and others.

Frederick—Oil and Gas Wells.—Frederick Oil, Water & Gas Co. has been incorporated with \$100,000 capital stock by F. D. Stalford, J. S. Brown and others.

Gage—Telephone System.—W. H. Porter, W. W. Sanford, Frank Harman and others have incorporated the Farmers' Rural Telephone Co. with \$5000 capital stock.

Gotebo—Land Improvement.—Charles A. Huber of Weatherford, O. T.; R. K. Woooten of Chickasha, I. T.; John B. Jones of Granite, O. T., and others have incorporated the Gotebo Land & Townsite Co. with \$25,000 capital stock.

Guthrie—Lumber Company.—Walton-Roger Lumber Co. of Guthrie and Hugo, I. T., has been incorporated with \$15,000 capital stock by P. T. Walton, E. D. Walton of Guthrie, T. H. Roger of Oklahoma City, O. T., and others.

Guthrie—Cottonseed-oil Mill.—Houghton & Douglass Cotton Co. has begun the erection of a three-press cottonseed-oil mill of 60 tons capacity; mill building, 31x200 feet; seedhouse, 60x200 feet, and hullhouse, 40x100 feet. Machinery has been purchased; bids for power have been opened. Specifications for transmission will be ready in a few days. (This enterprise recently referred to.)

Guthrie—Telephone System.—David M. Sowers, Otto Burst and others have incorporated the Northwestern Telephone Co.

Hamburg—Cotton Gin.—A. Hammond, F. M. Hammond and associates have incorporated the Hamburg Gin Co. with \$5000 capital stock.

Hennessey—Grain Company.—W. D. Cupps, Fred Ehler, J. H. Bush and others have incorporated the Hennessey Grain Co. with \$5000 capital stock.

Lawton—Cottonseed-oil Mill.—Neil P. Anderson of Fort Worth, Texas; Ed Woodall and P. J. Buchanan of Hillsboro, Texas, will establish cottonseed-oil mill. It is stated that site has been purchased on which to erect plant.

Manchester—Grain and Fuel.—Manchester Grain & Fuel Co. has been incorporated with \$5000 capital stock by Clem Livengood, C. E. Livengood and others.

Mountain Park—Irrigation Plant.—Otter Creek Irrigation Co. will construct reservoir covering 8500 acres and dam 70x200 feet to irrigate 40,000 acres; estimated cost \$750,000. The reservoir will have a capacity of 7,000,000,000 cubic feet of water. E. R. Kirby, Lawton, O. T., is engineer in charge.

Mountain View—Grain Company.—Farmers' Union Co-Operative Co. has been incorporated with \$25,000 capital stock by George W. Daniel, Charles J. Strain, Steven H. Sadler and associates to deal in grain.

Okarche—Creamery.—William Knecht, Nick Weber, F. W. Wiedey and others have incorporated the Okarche Co-operative Creamery Co. with \$5000 capital stock.

Oklahoma City—Coal Company.—R. J. Clark Coal Co. has been incorporated with \$20,000 capital stock by R. J. Clark of Oklahoma City, S. P. Render of Norman, O. T., and others.

Oklahoma City—Oil Refinery.—Oklahoma Refining Co. has been incorporated with \$50,000 capital stock by George A. Todd, Kee R. McKee, James L. Donohue and associates.

Oklahoma City—Hardware Company.—W. W. Storm, I. W. Erickson and others have incorporated the Storm & Erickson Hardware Co. with \$6000 capital stock.

Pawhuska—Ice Plant.—Pawhuska Ice Co.

has been incorporated with \$15,000 capital stock by Albert Jackson, R. E. Everett and associates.

Ringwood—Telephone System.—Chartered: Ringwood & Pleasant Valley Telephone Co., with \$1000 capital stock, by W. O. Smith, C. M. Flock and others.

Snyder—Cotton Compress and Oil Mill.—A company has been organized with H. A. Sulley, president; B. O. Burnett, vice-president; H. S. McCowan, secretary, and J. V. McClintic, treasurer, to establish cotton compress and cottonseed-oil mill.

Warren—Cotton Gin, etc.—Incorporated: Farmers' Gin & Supply Co., with \$6000 capital stock, by F. S. Woods, C. W. Edwards, A. F. Hendricks and others.

BURNED.

Birmingham, Ala.—Sloss-Sheffield Steel & Iron Co.'s stockhouse and boiler-house.

Blaine, Ark.—Marshall & Burkhead's saw-mill; loss \$3000.

China Grove, N. C.—Gray Manufacturing Co.'s plant; loss \$800.

Eldorado, Ark.—F. L. Carroll & Bro.'s saw-mill; loss \$1200.

Fayetteville, N. C.—Edgar A. Poe's brick plant; loss \$10,000.

Goldshoro, N. C.—Enterprise Lumber Co.'s saw-mill; loss \$15,000.

Hagerstown, Md.—Hagerstown Lounge Co.'s plant damaged.

Manchester, Va.—Manchester Manufacturing Co.'s flour mill.

Montgomery, Ala.—Montgomery Cooperage & Hardwood Co.'s mill; loss \$6000.

Nashville, Tenn.—Greenfield-Talbott-Battle-Finney Company's store building; loss \$60,000.

Norman, O. T.—Laundry and boiler-house of Territorial Hospital for the Insane; loss \$5000.

Rutherfordton, N. C.—M. Levy's store building; loss \$35,000.

Silver Creek, Miss.—E. L. McGowan's saw-mill.

South Boston, Va.—H. A. Edmondson's warehouse, loss \$30,000; First National Bank; J. B. Griffin & Co.'s harness and saddlery factory, loss \$10,000; Garland Hotel, loss \$12,000; S. F. Gilliland's store building, loss \$35,000; Jacob Summerfield's store building, loss \$10,000; C. C. Firesheet's dwelling, loss \$12,000; South Boston Telephone Exchange, loss \$2500.

Verda, La.—R. E. Gosney's saw-mill.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Alexandria, Va.—Apartment house.—H. J. Blauvelt, 918 F street N. W., Washington, D. C., is preparing plans for \$125,000 apartment-house to be erected by J. M. Hill, M. B. Harlow and others; five stories; light buff brick and terra-cotta; telephones; electric call bells; speaking-tubes; dumbwaiters; electric lights; steam heat, steam to be obtained from central heating plant located in rear; electric elevator; mall chutes from each floor, etc.

Asheville, N. C.—Building.—It is proposed to erect a \$15,000 building at the Home Industrial School, Miss Florence Stephenson, principal.

Asheville, N. C.—Hotel.—The hotel mentioned last week to be erected by Frank Loughran Company after plans by R. S. Smith will be 100x150 feet; fireproof construction; steam heat; electric lights; two passenger and one freight elevator; cost \$300,000.

Atlanta, Ga.—Business Building.—C. C. McGiehan has purchased site, 70x85 feet, on which to erect modern business building.

Atlanta, Ga.—Theater.—Plans have been completed for theater previously reported to be erected by W. A. Wimbish at a cost of \$200,000.

Baltimore, Md.—Bank Building.—The Metropolitan Savings Bank, Calvert and Lexington streets, has awarded contract to Norcross Bros. Company, Colorado Building, Washington, D. C., for the construction of bank building at southwest corner Charles and Saratoga streets; one story, 110 feet frontage; Troy white-granite exterior; reinforced-concrete skeleton construction; composition roof; terra-cotta trim; copper roof and skylight; galvanized-iron frames and sash; metal doors; ornamental iron and bronze; interior marble; metal furring and lathing.

Heating and ventilating system, plumbing, electrical work, bank grilles, vault doors and clock not included in contract; Parker & Thomas, architects, Union Trust Building, Charles and Fayette streets.

Baltimore, Md.—Office Building.—Referring to office building to be erected at 4 Light street by the International Trust Co., 25 East Baltimore street, the following contractors are estimating on construction: Lamb & Wells, 211 North Liberty street; Thomas L. Jones & Son, 410 West Saratoga street; Engineering-Contracting Co., 309 North Calvert street; Gladfelter & Chambers, 2072 Woodberry avenue; John Waters, 23 East Centre street; three stories, 20x28.7 feet; marble exterior with granite base; steel-frame construction fireproofed with concrete; terra-cotta partitions; fireproof doors; slag roof. Plumbing, heating and electrical work not included in contract; Parker & Thomas, architects, Union Trust Building, Charles and Fayette streets.

Baltimore, Md.—Dwellings.—The Russell Construction Co., 17 East Saratoga street, will erect 29 two-story brick dwellings on Clifton avenue between 7th and 8th streets to cost about \$58,000.

Baltimore, Md.—Warehouses.—John P. Cunningham, 123 South Charles street, has awarded contract to J. Harry Thuman to tear down two warehouses at 121 and 123 South Charles street, and will erect two four-story brick warehouses on the site, which is 46x95 feet.

Baltimore, Md.—Dwellings.—A. F. Perot, builder, Monroe street and Westwood avenue, will erect 19 two-story brick dwellings on Appleton street near Westwood avenue to cost about \$30,000. Hot-air-heating systems will be installed.

Baltimore, Md.—Dwellings.—Walter L. Westphal, builder, 1700 North Bond street, will erect 15 two-story brick dwellings on Port street near North avenue to cost about \$15,000.

Burlington, N. C.—Office Building.—Piedmont Trust Co. has let contract for erection of proposed three-story building 31x100 feet; ordinary construction; steam heat; electric lights; cost \$12,000.

Baltimore, Md.—Dwelling.—John W. Frick, American Building, Baltimore and South streets, has commissioned Ellcott & Emmart, architects, Union Trust Building, Charles and Fayette streets, to prepare plans and specifications for 2½-story dwelling at Roland Park to cost about \$10,000.

Baltimore, Md.—Warehouse.—O. F. H. Warner & Co., wholesale paper dealers, 15-19 East Camden street, has commissioned Henry Brauns, architect, 414 Professional Building, 330 North Charles street, to prepare plans and specifications for warehouse to be erected at 104 and 106 East Lombard street; four stories, 46x135 feet.

Baltimore, Md.—Warehouse.—C. Read & Co., wholesale grocers, 20 North Greene street, have awarded contract to Thomas B. Stanfield & Son, 109 Clay street, for the construction of warehouse at 20 North Greene street; four stories, 38x74 feet; brick with granite base and galvanized-iron trimmings; steel beams and girders; cast-iron columns; slag roof; fire shutters and doors; vault lights; metal ceiling and skylight; sanitary plumbing; heating system, electric wiring and fixtures and elevator not included in contract; Freund & Crawford, architects, 20 Builders' Exchange Building, 2 East Lexington street.

Baltimore, Md.—Dwellings.—Isidor Schoenberg, 231 Calvert Building, Fayette and St. Paul streets, has awarded contract to John E. Cullimore, 1153 North Fulton avenue, for the construction of 12 two-story brick dwellings on Baker street near Bloomingdale road; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Dwellings.—James T. Miller, builder, 2100 Bolton street, has purchased lot on Calvert near 30th street and will erect a number of three-story brick buildings on the site, which is 132x154 feet.

Baltimore, Md.—Dwelling.—Wm. A. Marburg, 6 East Eager street, has commissioned Joseph Evans Sperry, architect, 409 Calvert Building, Fayette and St. Paul streets, to prepare plans and specifications for dwelling to be erected at 6 East Eager street; four stories, 25 feet frontage; Indiana limestone exterior; cost about \$80,000.

Baltimore, Md.—Apartment-house.—Wm. B. Wheeler, 214 West Fayette street, has purchased the three-story brick dwellings at 1817, 1819 and 1821 Gulford avenue and will remodel the structures, converting them into an apartment-house.

Baltimore, Md.—Dwelling.—Referring to 2½-story dwelling to be erected at Roland Park by John W. Frick, American Building, Baltimore and South streets, the following

contractors are estimating on the construction: A. F. West, 217 South Gilmor street; Gladfelter & Chambers, 2072 Woodberry avenue; Roland Park Company, Roland Park; John Cowan, 106 West Madison street, and Willard E. Harn, 109 Clay street.

Baltimore, Md.—Warehouse.—Isaac Weinberg, 4-6 South Eutaw street, has purchased lot at 37 Hopkins Place and has commissioned Louis Levi, architect, 610 American Building, Baltimore and South streets, to prepare plans and specifications for a five-story brick warehouse to be erected on the site, which is 29x140 feet.

Baltimore, Md.—Church.—The German Lutheran congregation, Rev. Karl Kretzmann, 2036 East Hoffman street, has purchased lot at Overlea and Spruce streets, Overlea, and will erect granite church building on the site, which is 50x145 feet. Mr. Kretzmann is also having plans prepared for another church at Highlandtown.

Baltimore, Md.—Church.—The Allnutt Memorial Methodist Protestant Church, Joseph W. Kirk, pastor, 2029 East Lombard street, has awarded contract to Frederick Wright Company, National Marine Bank Building, Gay and Water streets, for the construction of one-story stone and brick addition to its church building at Lombard and Chester streets to cost about \$7000.

Baltimore, Md.—Dwellings.—James Keelty, builder, 320 East Oliver street, will erect seven two-story brick dwellings at Gulgford avenue and Barclay streets to cost about \$11,000.

Baltimore, Md.—School Building.—The Samuel Ready School for Female Orphans, Helen J. Rowe, principal, North and Hartford avenues, has commissioned Joseph Evans Sperry, architect, 409 Calvert Building, Fayette and St. Paul streets, to prepare plans and specifications for an additional school building to be erected at the school grounds.

Baltimore, Md.—Dwelling.—The Northminster Presbyterian Church, Robert P. Kerr, pastor, 25 West North avenue, will erect parsonage adjoining its church building at St. Paul street and North avenue; three stories, 25 feet front; marble exterior; tin roof; electric wiring and fixtures; sanitary plumbing; heating system. John Hiltz & Son, 3 Clay street; B. F. Bennett, 123 South Howard street; Harry H. Brown, 109 Clay street; Joseph Lamb, 253 West Preston street; J. H. Miller, 110 Dover street, and Henry Smith & Sons Company, 116 South Regester street, are estimating on construction; Charles E. Cassell & Son, architects, Law Building, Courtland near Lexington street.

Baltimore, Md.—Dwellings.—Samuel E. Pertz, 844 Equitable Building, has purchased lots on North Calvert street between 27th and 31st streets and will erect about 60 three-story brick dwellings on the site to cost about \$200,000.

Baltimore, Md.—School.—The municipal Board of Awards has awarded contract to Milton C. Davis, 5 Hopkins Place, for the construction of school at Garrison and Main avenues; two stories and basement, 63x28.9 feet; brick with stone trimmings; steel beams; cast-iron columns; galvanized-iron cornice; tin roof; sanitary plumbing; steam-heating system; cost \$34,000; Simonson & Petsch, architects, American Building, Baltimore and South streets.

Baltimore, Md.—Asylum Building.—The municipal Board of Awards has awarded contract to Frederick Decker & Son, 1209 East Biddle street, for the construction of administration building at Bayview Asylum; three stories, 35x130 feet; brick with stone trimmings; steel beams; cast-iron columns; tin roof; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost \$27,500.

Baltimore, Md.—Jail Construction.—The municipal Board of Awards, City Hall, has awarded contract to Van Dorn Iron Works, Cleveland, Ohio, George T. Welch, Baltimore representative, 1121 Calvert Building, for steel corridors in jail; cost \$10,647.

Baltimore, Md.—Masonry Wall.—Sealed proposals, addressed to the Board of Awards, City Hall, Baltimore, Md., will be received until June 30 at office of Harry F. Hooper, city register, City Hall, for constructing masonry coping, pool, terrace steps, wall, iron gate, etc., on Roland Water Tower lot. Plans and specifications may be obtained from Alfred M. Quick, water engineer, City Hall.

Batesville, Ark.—Cotton Warehouse.—It is proposed to build cotton warehouse to have a capacity for 5000 bales, and a committee has been appointed with Theo. Maxfield, chairman, to arrange for its erection.

Beaumont, Texas—Office Building and Laboratory.—The Texas Company has let contract for the erection of \$16,000 office

building and laboratory, for which plans have been prepared by H. C. Maurer. Most of the building material has been purchased excepting enameled brick, which is needed for the walls in quantities.

Birmingham, Ala.—Dwelling.—J. A. Roundtree has permit to erect two-story brick veneer residence to cost \$5500.

Birmingham, Ala.—Skating Rink.—Chartered: Lake Como Auditorium Co., with \$10,000 capital stock, by John C. Forney, Ben F. Barbour, Louis Schellinger and others, to erect skating rink.

Birmingham, Ala.—Building.—Birmingham Distilling Co. has secured permit for erection of one-story brick building to cost \$4000.

Charlottesville, Va.—Buildings.—W. A. Lambeth will supervise the construction and let contracts for the construction of dining-hall and home for the president of University of Virginia, for which McKim, Meade & White are preparing plans, and hospital, 38x100 feet, for which plans are being prepared by Paul J. Pelz, Washington, D. C. Five hot-water-heating and one steam-heating plant, electric and gas fixtures and electric elevator in hospital will be installed. (This item referred to last week.)*

Chattanooga, Tenn.—School Building.—School Board has adopted plans by Huntington & De Sable for the erection of proposed \$12,000 school building at Ridgedale.

Cisco, Texas—Masonic Temple.—A. J. Olson has contract to erect two-story brick building 32x30 feet, ordinary construction, for the local lodge of Masons, previously mentioned. Electric lights will be installed; cost \$10,000.

Coimbs, Ga.—Stable.—M. C. Barlow has contract to erect stable for Ben H. Fletcher; one story, 70x150 feet; brick; cost \$7500.

Dallas, Texas—School Building.—School Board will shortly have plans and specifications prepared for the erection of proposed high-school building, for which \$200,000 is available.

Dallas, Texas—Church.—Plans by J. E. Flanders have been adopted for \$20,000 edifice previously reported to be erected by Ervay Street Methodist Church; E. L. Egger, pastor.

Dallas, Texas—Building.—H. Peterman, 288 San Jacinto street, has contract to erect entrance building to the fair grounds, previously mentioned; 30x154 feet; cement-stone blocks; reinforced concrete base; cost \$12,000; H. A. Overbeck, 503-505 Juanita Building, architect.

Dallas, Texas—Hotel.—Parkinson & Bergstrom of Dallas and Los Angeles, Cal., are preparing plans for hotel mentioned recently to be erected by J. W. West of Valdosta, Ga., and J. W. Wunt, Hotel Woodward, New York city; eight stories, 75x200 feet; fireproof construction; cost about \$500,000.

Dallas, Texas—Dwelling.—J. E. Flanders, 45 Main street, has prepared plans and will receive bids for residence to be built at Oak Cliff by W. C. Pagitt.

Dallas, Texas—Building.—Geo. W. Baxter has contract to erect brick and stone building for Mr. Pires.

Davis, I. T.—School Building.—City is considering the issuance of \$20,000 of bonds for the erection of school building. Address The Mayor.

Dresden, Tenn.—Hotel.—J. P. Taylor is arranging for the erection of a three-story concrete hotel.

Dublin, Texas—School Building.—Town is considering the erection of school building. Address Town Clerk.

El Paso, Texas—Dwelling.—Trost & Trost are preparing plans for residence reported last month to be erected by T. M. Wingo; cost \$6000.

Fort Smith, Ark.—Bank and Office Building.—The Echols and Atkinson estates are arranging for the erection of a six or seven-story steel building 50x140 feet to cost \$100,000. W. J. Echols, president Merchants' National Bank, can probably give information.

Fort Worth, Texas—Business Building.—Buchanan & Gilder have contract to erect two-story brick building for Dr. J. R. Pollock, mentioned last week; cost \$7000.

Fort Worth, Texas—Stable.—Walter Scott is having plans prepared by Smith & Schenk for erection of stable.

Fort Worth, Texas—Dwelling.—William Monnig has let contract to W. R. Knox for the erection of residence previously mentioned; Smith & Schenk, architects.

Fort Worth, Texas—Dwelling.—G. W. Smith has contract to erect residence for J. E. Wallace for which Smith & Schenk were previously reported as preparing plans.

Fulton, Ky.—Store Building.—M. P. McDowell is considering the erection of a \$10,000 store building.

Greenville, S. C.—Building.—J. R. Lawrence is preparing plans for two-story building

100x120 feet, of ordinary construction, to be erected by Mrs. C. V. Cauble, Selma, Ala.; freight elevators; gas and electric fixtures; cost \$22,000.*

Hope, Ark.—School Building.—Board of Education will let contract June 20 for erection of school building for which H. E. Hewitt, 22 Arcade Building, Peoria, Ill., was previously reported as preparing plans; building to be two stories, 90x90 feet; ordinary construction; hot-air-heating plant; cost \$25,000.

Houston, Texas—Office Building.—Sam Roos has purchased site 40x100 feet on which to erect office building.

Jacksonville, Fla.—Store and Flat Building.—T. B. Stringfellow is arranging to erect proposed three-story brick store and flat building.

Jonesboro, Ark.—Jail Building.—W. S. Hull of Jackson, Miss., has been commissioned to prepare plans for proposed jail building.

Kansas City, Mo.—Church.—Geo. Forrester has contract for excavation, stone foundation, brick and cut-stone work on Prospect Avenue Congregational Church, for which Rudolf Markgraf was previously reported as preparing plans; 51x117 feet; ordinary construction; hot-air and fan system of heating; electric and gas fixtures; cost \$30,000.

Kansas City, Mo.—Dwelling.—J. A. Ford has purchased site on which to erect a \$20,000 residence.

Kansas City, Mo.—Union Depot.—Kansas City Terminal Co. will be organized with John M. Egan of Chicago, Ill., president, to construct the \$2,000,000 passenger station previously reported to be erected by the various railroads entering Kansas City.

Knoxville, Tenn.—Building.—Mrs. George Baxter is reported as to rebuild structure recently burned.

Knoxville, Tenn.—Building.—Baumann Bros. are preparing plans for five-story building to be erected by McMillan, Hazen & Co., replacing structure recently reported burned.

Knoxville, Tenn.—Freight Sheds.—It is reported that the Southern Railway will erect freight shed 22x300 feet; also extend buildings now receiving local freight. D. W. Lum, Washington, D. C., is chief engineer.

Knoxville, Tenn.—Church.—The edifice to be erected by the Lutterloh Street M. E. Church, Frederick E. Ross, pastor, for which Badgley & Nicklas, 1273 Euclid avenue, Cleveland, Ohio, were previously reported as preparing plans, will be one story, 66x106 feet; stone; slate or tile roof; art glass; hardwood interior finish; hard plaster; corner beads; plastic ornaments; gas and electric fixtures; nickel plumbing; copper cornices, etc.; cost \$40,000.

Knoxville, Tenn.—Office Building.—J. M. Dunn & Son have contract to erect two-story office building for Brookside Mills, previously mentioned; L. C. Warters, architect.

Lagrange, Ga.—Warehouse.—A. F. Walker, Austell Building, Atlanta, Ga., is preparing plans for warehouse mentioned last week to be erected by the Security Warehouse Co., being organized; 200x100 feet; standard fireproof construction; cost \$10,000.

Lagrange, Ga.—Building.—Lagrange Cemetery Co. has secured site on which to erect a two or three-story building 100x122 feet.

Lake Charles, La.—Depot.—Bids are being received for two-story brick freight depot 40x100 feet, previously reported to be erected by the St. Louis, Watkins & Gulf Railway; H. B. Kane, general manager.

Laurinburg, N. C.—Depot.—Seaboard Air Line Railway Co. will erect depot of frame 30x65 feet, with metal roof; ordinary construction; electric and gas fixtures; cost \$4000. W. L. Seddon, Portsmouth, Va., is chief engineer.

Little Rock, Ark.—Courthouse Improvements.—Pulaski county is having plans prepared for the erection of a \$50,000 addition to courthouse; C. T. Coffman, county judge.

Little Rock, Ark.—Building.—The building to be erected by Thomas Lafferty, for which Stanton & Collamore, Room 14, Mann Building, were mentioned last week as having contract, will be two stories, 100x100 feet; ordinary construction; electric and gas fixtures; cost \$20,000.

Lumpkin, Ga.—School Building.—City will vote July 2 on the issuance of bonds for erection of school building. Address The Mayor.

Lynchburg, Va.—Building.—C. W. Hancock & Son have contract to erect building for Beasley, Couch & Co., previously reported; 33x120 feet; fireproof construction; reinforced concrete with metal frames and sash; wireglass; low-pressure steam-heating plant; gas fixtures; electric freight elevator; cost \$30,000; Aubrey Chesterman, 612-613 Krise Building, architect.

Mangum, O. T.—Store Building.—Bids will

be received until June 15 at J. P. Glasler and W. F. McKown's place of business for erection of two-story store building 75x100 feet. Certified check for \$200 must accompany each bid. Plans on file at Glasler & McKown's place of business and office of S. A. Layton, El Reno, O. T. Usual rights reserved.

Memphis, Tenn.—Theater.—Sleden-Breck Construction Co., Olson & Lesch of Memphis and the Fuller Construction Co. of New York city are estimating on the construction of proposed building for the Gaiety Theater; plans on file at office of W. M. Jones, architect, who will supervise the construction.

Memphis, Tenn.—Clubhouse.—Olson & Lesh have contract to erect clubhouse for the Business Men's Club, for which Shaw & Iffel were previously reported as preparing plans; 50x75 feet; fireproof construction; steam heat; combination gas and electric fixtures; electric elevators; cost \$110,000.

Memphis, Texas—Hotel.—H. G. Stevens has let contract for the erection of proposed hotel.

Mobile, Ala.—Building.—George B. Rogers has completed plans for proposed eight-story building of reinforced concrete to be erected by G. Van Antwerp, to cost \$150,000. (This item was erroneously reported last week under New Orleans, La.)

Monroe, La.—Hotel.—O. H. Bernhardt is completing arrangements for the erection of proposed five-story hotel.

Montgomery, Ala.—Clubhouse.—Montgomery Driving Club, it is reported, will build a clubhouse on the fair grounds.

Montgomery, Ala.—Fair Buildings.—Cook & Laurie Contracting Co. has contract at \$28,665.20 for constructing all the buildings in the fair grounds for the Alabama Agricultural Association, for which D. H. Long of Chicago, Ill., was previously mentioned as preparing plans. The buildings will consist of a two-story exhibit hall 100x200 feet, two-story grandstand 67x24 feet, poultry building, administration building, blacksmith shop, freight depot, music stand, judges' stand, barns, etc.

Muskogee, I. T.—Car Barn.—Muskogee Electric Traction Co. will erect car barn 40x130 feet. Ira L. Reeves is general manager.*

Newbern, N. C.—Lodge Building.—B. P. O. E. has purchased site on which to erect proposed \$50,000 building.

New Iberia, La.—School Buildings.—School Board is arranging for the erection of two school buildings to cost \$15,000 each.

New Orleans, La.—School Building.—D. H. Barnes, 603 Hennen Building, has contract to erect school building for New Orleans Terminal Co., for which Andry & Bendersnagel, 706 Tulane-Newcomb Building, were recently mentioned as preparing plans; two stories, 25x30 feet; ordinary construction; slate roof; hot-water-heating plant; electric fixtures; cost \$50,000.

New Orleans, La.—Depot.—It is stated construction work will commence in about 40 days on the \$175,000 passenger station previously reported to be erected by the New Orleans Terminal Co., L. S. Berg, president, for which Architect Burnham, Chicago, Ill., prepared the plans.

New Orleans, La.—Office Building.—Plans by Andry & Bendersnagel have been adopted for proposed five-story brick and terra-cotta building for the New Orleans Auction Exchange; Albert Paul, secretary; cost \$75,000.

Newport News, Va.—Warehouse.—Dabney Brick Co., George R. Dabney, president, will erect warehouse 100x200 feet. All material has been purchased.*

Newport News, Va.—Warehouse and Office Building.—E. Morgan is lowest bidder at \$8997 and will probably be awarded contract for erection of warehouse and office building for S. W. Holt and H. B. Walker, mentioned last week. C. T. Holtzclaw is architect; building to be three stories, of brick.

Norfolk, Va.—Hospital.—Taylor & Hepburn have been commissioned to prepare plans for rebuilding that portion of Norfolk Protestant Hospital recently reported burned.

Norfolk, Va.—Pier, Warehouses.—It is reported that the Norfolk & Western Railway Co. has purchased a tract of land at Lambert's Point, consisting of 150 lots, and will arrange for the extension of terminals, erecting new pier, warehouses, etc. C. S. Church, III, Roanoke, Va., is chief engineer.

Norfolk, Va.—Hotel.—Bids will be opened June 16 for erection of addition to Hotel Richmond, for which plans have been prepared by John Kevan Peebles. Samuel Atkinson is manager of hotel.

Ocean City, Md.—Pier.—M. H. Dawson is supervising construction of pier for Ocean City Pier & Improvement Co.; to be 702 feet long; piling of hickory, and all lumber in proper order of white oak. On the shore end will be a convention hall, the roof of which

will cover 126x132 feet; on the ocean end a roof will cover a space 48x88 feet; roadway will be 24 feet wide. The power for lighting plant will be obtained from gasoline engine; cost \$20,000.*

Paducah, Ky.—Buildings.—Contract will be let June 15 for buildings to be erected on the McCracken county poor farm after plans by A. L. Lassiter, Yelser Building; main building to be two stories, 280x200 feet, and four one-story buildings connecting with main building by colonnade; boiler and pump building. Steam heat and electric fixtures will be installed; cost \$18,000.

Paducah, Ky.—Hospital.—A. L. Lassiter, Yelser Building, has completed plans for addition to be built to the Illinois Central Railroad Hospital, to include servants' apartments, kitchen, porches, disinfecting plant; frame construction; cost \$5000. Contract will be let June 11.

Palestine, Texas—School Building.—City is arranging for the erection of a \$20,000 school building. Address The Mayor.

Paxton, Fla.—Dwelling.—John J. Earle will erect residence.*

Pensacola, Fla.—City Hall.—Bids will be received until June 26 at the office of L. Hillion Green, chairman board of bond trustees, for the erection of city hall. Certified check for \$1000 must accompany each bid. Revised plans and specifications and further particulars can be obtained from Frederick Ausfield, architect, Montgomery, Ala., or from L. Hillion Green, chairman.

Pensacola, Fla.—Church.—Badgley & Nicklas, 127 Euclid avenue, Cleveland, Ohio, are preparing plans for edifice to be erected by Palafax Avenue M. E. Church; 110x90 feet; ordinary construction; steam-heating plant; gas and electric fixtures; cost \$50,000. A. M. McMillan is secretary of building committee. This item previously reported.

Pine Bluff, Ark.—Business Building.—F. M. Bridges and Fred Senyard are arranging for erection of a four-story brick business building.

Pine Grove, W. Va.—Church.—F. M. Harless and J. J. Hedrick of Waiteville, W. Va., have contract to erect proposed edifice for Methodist Episcopal Church.

Ponchatoula, La.—Store Building.—J. R. Abels Company, Ltd., will erect a two-story brick building 50x50 feet.

Quitman, Ga.—Depot.—It is reported that the Atlantic Coast Line will erect a \$10,000 brick depot. E. B. Pleasants, Wilmington, N. C., is chief engineer.

Raleigh, N. C.—Office Building.—James F. Taylor, 504 Tucker Building, has contract to erect brick office building 55x63 feet for the City Land Co.; ordinary construction; steam heat; gas and electric fixtures.

Richmond, Va.—Store Building.—James Fox & Sons have contract to erect store building for Mrs. Helen Christian, to be occupied by Charles G. Jurgens' Son; seven stories, 37x133 feet; fireproof construction; Carl Ruehrmund, architect.

Roff, I. T.—Church.—J. T. Smith has contract to erect proposed \$6500 brick edifice for Methodist congregation.

San Saba, Texas—Warehouse.—Chartered: Farmers' Union Warehouse Co., with \$6000 capital stock, by S. S. Chamberlain, J. B. Graham, Wm. Scott and others.

Sealy, Texas—Cotton Warehouse.—Farmers & Bankers' Cotton Warehouse Co. of Houston, Texas, is arranging for the erection of cotton warehouse.

Seguin, Texas—Store Building.—J. Kieffer has contract to erect \$1000 addition to store building of H. Seligman.

Sewell's Point, Va.—Building.—Ter-Centennial Amusement Co. has been chartered with A. W. Martin, manager, and N. S. Horton, president, to erect an amusement building on the exposition grounds 100x150 feet. About \$25,000 will be invested; Phil E. Dunavant & Co. of Norfolk, Va., architect; main office, 524 Board of Trade Building, Norfolk, Va.

Shawnee, O. T.—School Building.—Higgins & Furnas have contract to erect proposed brick and stone school building to cost \$22,000.

Shawnee, O. T.—Car Barn.—Shawnee, Tecumseh City & Interurban Railway Co. has purchased site, 50x300 feet, on which to erect brick car barn.

Simpsonville, S. C.—School Building.—Town has voted the proposed \$4500 bond issue for erection of school building. Address Town Clerk.

South McAlister, I. T.—Hotel and Business Building.—Smith & Parr, 324 Arnote Building, are preparing plans and will receive bids for a four-story hotel and business building, 101x75 feet, for L. A. Mansfield; press brick, stone, marble and terra-cotta; concrete flooring; composition roof; gas and electric fixtures; modern plumbing; cost \$60,000.

St. Louis, Mo.—Office Building.—Plans by F. C. Bonsack have been adopted for proposed 17-story office building to be erected by Lawrence B. Pierce and associates.

St. Louis, Mo.—Wharf.—Gottlieb Eyermann is lowest bidder at \$9380 for the proposed reconstruction of city wharf.

St. Louis, Mo.—Flats Building.—F. S. Kraas and C. L. Gerachy have purchased site on which to erect flats building.

St. Louis, Mo.—Building.—Masonic Sanitarium & Training School Co., Dr. Joseph E. Chambers, secretary, has purchased site on which to erect a five-story building 70x120 feet.

St. Louis, Mo.—Dwelling.—Wilson P. Foster has purchased site on which to erect a \$12,000 residence.

Sykesville, Md.—Building.—Owens & Sisco, Continental Building, Baltimore, Md., are preparing plans for building to be erected at the Springfield State Asylum for the Insane, to be used as dining-room and kitchen, 150x140 feet; fireproof construction; hot-water-heating plant; electric lights; cost \$40,000. Bids will probably be asked in about two weeks.

Tulsa, I. T.—Depot.—Plans have been completed by C. M. Roquette, St. Louis, Mo., for proposed depot for the St. Louis & San Francisco Railroad; 135x30 feet; pressed brick with stone trimmings.

Valdosta, Ga.—Building.—Lawson & Boyd have contract to erect three-story building for W. L. Converse.*

Valdosta, Ga.—Store Building and Warehouse.—W. L. Converse is considering the erection of two-story building 90x100 feet and cotton warehouse 150x200 feet.

Vernon, Texas—Church.—First Baptist congregation is considering the erection of edifice. Address The Pastor.

Wadesboro, N. C.—Warehouse.—Anson County Warehouse Co. has been organized with W. J. McLendon, president; G. A. Martin, vice-president, and W. L. Steel, secretary-treasurer, to erect warehouses at Wadesboro and Morven, recently mentioned.

Washington, D. C.—Church.—Washington Heights Presbyterian Church, E. Lawrence Hunt, pastor, 1924 15th street N. W., will erect addition to its church building at Kalorama avenue and Columbia road. Richardson & Burgess, Colorado Building, 14th and G streets N. W.; John H. Nolan, 1413 G street N. W.; Wm. P. Lipscomb & Co., 1405 F street N. W., and Louis H. Emmert, 1419 G street N. W., are estimating on the construction; Appleton P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Synagogue.—The Adas Israel Hebrew congregation, Simon Oppenheimer, chairman of building committee, 514 9th street N. W., has awarded contract to Arthur Cowsill, 307 Colorado Building, 14th and G streets N. W.; John H. Nolan, 1413 G street N. W.; Wm. P. Lipscomb & Co., 1405 F street N. W., and Louis H. Emmert, 1419 G street N. W., are estimating on the construction; Appleton P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Dwellings.—E. G. Gummel, 612 F street N. W., has awarded contract to August Getz & Son, Stewart Building, 6th and D streets N. W., for the construction of three two-story brick dwellings at 300-304 Rhode Island avenue N. W., to cost about \$14,000. Hot-water-heating systems will be installed; Joseph Bohn, Jr., architect, 215 D street N. W.

Washington, D. C.—Dwellings.—L. E. Breuninger, builder, 1122 Dartmouth street N. W., will erect 10 two-story brick dwellings at 102-108 and 112-113 R street N. E. to cost about \$35,000. Hot-water-heating systems and sanitary plumbing will be installed; N. R. Grimm, architect, 627 F street N. W.

Washington, D. C.—Dwellings.—L. E. Breuninger, builder, 1122 Dartmouth street N. W., will erect two two-story brick dwellings at 162-168 and 170-171 1st street N. E. to cost about \$8000. Hot-water-heating systems will be installed; N. R. Grimm, architect, 627 F street N. W.

Washington, D. C.—Government Building.—Sealed proposals will be received until June 18 by Bernard R. Green, superintendent of construction, for the steel construction of second, third and attic floors and roof of building for the National Museum. Specifications and other information may be obtained from office of buildings, National Museum, Library of Congress.

Washington, D. C.—Office Building.—Jordan & Bloomer, 1314 G street N. W., have awarded contract to Burgess & Parsons, 627 F street N. W., for the construction of office building at 1304 and 1306 G street N. W.; three stories, 28x32 feet; brick with stone trimmings; tin roof; electric wiring and fixtures; sanitary plumbing; heating system; cost about \$15,000; Hunter & Bell, architects, 1010 F street N. W.

Washington, D. C.—Office Building.—Stillson Hutchins, 10th and D streets N. W., has awarded contract to Benjamin Blethyn, builder, 1303 Oregon avenue N. W., for the construction of office building at 127 10th street N. W.; three stories and basement, 25x78 feet; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; heating system; cost about \$15,000; Hunter & Bell, architects, 1010 F street N. W.

Washington, D. C.—Stable.—B. B. Earnshaw, 1107 11th street S. E., has awarded contract to S. H. Maddox, 428 8th street S. E., for the construction of stable in rear of 723 12th street S. E.; two stories, 38x40 feet; brick and stone; tin roof; C. E. Webb, architect, Warder Building, 523 9th street N. W.

Washington, D. C.—Store Building.—Meyer Rosenberg, 1209 11th street S. E., has awarded contract to S. H. Maddox, 428 8th street S. E., for the remodeling of store building at 510 1/2 street S. W. Sanitary plumbing and heating system will be installed; C. E. Webb, architect, Warder Building, 523 9th street N. W.

Washington, D. C.—Store Building.—J. H. Curran of Guy, Curran & Co., 313 9th street N. W., has awarded contract to Joseph O. Guy, 614 E street S. E., for remodeling store building at 807 H street S. E. Electric wiring and fixtures and plumbing will be installed; C. E. Webb, architect, Warder Building, 523 9th street N. W.

Washington, D. C.—Store Building and Stable.—Wilhelmina Widmayer, 3129 Brightwood avenue, N. W., has awarded contract to O. W. Niedomanski, 622 Whitney avenue N. W., for the construction of two-story store 25x62 feet and stable 20x30 feet on Brightwood avenue; brick with stone trimmings; tin roofs; galvanized-iron cornices; hot-water-heating system; cost about \$6000; A. H. Beers, architect, 717 14th street N. W.

Washington, D. C.—Store Buildings.—Clarence B. Hight, 722 Colorado Building, 14th and G streets N. W., will erect two store buildings at 2626 and 2628 4th street N. W.; one story, 50x15 feet; brick; tin roof; galvanized-iron cornices; sanitary plumbing; gas fixtures; cost about \$6000; A. H. Beers, architect, 717 14th street N. W.

Waycross, Ga.—School Building.—City will vote in July on \$25,000 bond issue previously reported for the erection of school building; P. M. Helghe, mayor.

Welch, W. Va.—Bank Building.—W. M. Seay & Son, Lynchburg, Va., have contract to erect building for the Citizens' Bank after plans by Holmboe & Lafferty, Clarksburg, W. Va.

Wichita Falls, Texas—Church.—Baptist congregation has let contract to M. Hardin, Farmersville, Texas, for the erection of proposed \$15,000 pressed-brick edifice.

Wilmington, N. C.—Building.—Joe Schad has contract to erect building for Peterson & Rulfs after plans by Leitner & Wilkins; three stories, 30x100 feet; brick; fireproof construction; steam heat; electric lights; cost \$15,000.

RAILROAD CONSTRUCTION.

Railways.

Aberdeen, Miss.—Wm. F. Gordon is reported to be making a preliminary survey for the Illinois Central Railroad from Aberdeen via Smithville for about 40 miles, passing Tremont or Stone's Cross Roads and going into Franklin county, Alabama. This is on the proposed line between Corinth and Birmingham.

Addison, W. Va.—The West Virginia Midland Railway has begun construction on its proposed extension up the main fork of Elk river. It will also build four miles along the back fork of the Elk river to coal mines. John T. McGraw of Grafton, W. Va., is president.

Albany, Ga.—Reported that capitalists in Albany and also in New York city are preparing to build an electric railway from Albany, Ga., to Macon, Ga., about 90 miles.

Albany, Ga.—Concerning the report that the Central of Georgia Railway would build a line from Albany, Ga., to Quincy, Fla., an officer of the company writes the Manufacturers' Record that there is nothing definite enough at present to justify an announcement.

Alcoa, S. C.—Mr. D. W. Alderman, vice-president of the Alcoa Railroad, writes the Manufacturers' Record that the line will be extended from Beulah to Motts Cross Roads on or near Lynch's river, about five miles. Most of the grading is done. Mr. Alderman has charge of construction.

Andalusia, Ala.—Reported that the Central of Georgia Railway has let a contract to build an extension from Andalusia to the Gulf of Mexico, 50 miles. T. S. Moise is general manager at Savannah, Ga.

Anniston, Ala.—The Louisville & Nashville Railroad Co. is reported to be surveying for a line from Alexandria to Chalybeate mountain, eight miles, to reach ore fields. W. A. Courtenay is chief engineer at Louisville, Ky.

Demopolis, Ala.—Reported that the Sumter & Choctaw Railway, operated by the Allison Lumber Co. of Bellamy, 17 miles west of Demopolis, is building south from there, construction now being completed to within a few miles of Whitfield, the line to be extended into Choctaw county.

Ashland, Ky.—Eugene Zimmerman, president of the Detroit, Toledo & Ironton Railroad, is quoted as saying that estimates have been received for building the proposed extension railroad south from Ashland into

Eastern Kentucky coal fields, and it is expected that construction will begin soon.

Atlanta, Ga.—The Atlanta, Birmingham & Atlantic Railway Co. is reported to have let an 80-mile contract to the Callahan Construction Co. of Knoxville, Tenn., this to cover the distance between Atlanta and a junction with the main line from Brunswick to Birmingham at Warm Springs, Ga.

Austin, Texas.—William Gallatin Carroll & Co. of New York city are reported to be securing rights of way for the proposed electric railway to connect Austin, San Marcos, Lockhart, Seguin and San Antonio, Texas, with 200 miles of line.

Beaumont, Texas.—The Kenefick, Hammon & Quigley Construction Co. reports that work on the extension of the Beaumont, Sour Lake & Western Railway is progressing rapidly, and that the entire line, 70 miles long, will be in operation before the end of the year. It is also reported that the Colorado Southern, New Orleans & Pacific Railway, between De Quincy, La., and Baton Rouge, La., 140 miles, which is now being built by the same construction company, will likewise be finished by next Christmas.

Belington, W. Va.—D. F. Maroney of Pittsburg, president of the Uniontown & Wheeling Short Line, is reported as saying that the West Virginia Connecting Railroad will soon be chartered in Pennsylvania to build a line from Rogersville, on the Uniontown & Wheeling road, southward through Green county, Pennsylvania, and into West Virginia through Monongalia, Marion, Harrison and Barbour counties to Belington, W. Va., connecting there with the West Virginia Central Railway. It will touch the Baltimore & Ohio at Wolf Summit, Brown and Metz, W. Va. J. V. Thompson of Uniontown, Pa., is to build the line, others interested being J. R. Barnes, A. J. Cochran and C. N. Hanna, besides Mr. Maroney, who will be president. The latter's address is Farmers' Bank Building, Pittsburg, Pa.

Birmingham, Ala.—The Seaboard Air Line's proposed spur in Calhoun county will, it is said, be three miles long from Ohatchie, Ala., on the Air Line between Birmingham and Atlanta. W. L. Seddon is chief engineer at Portsmouth, Va. A later report says the line will be four and one-half miles long to Chalybeate mountain, and that P. H. O'Brien has the grading contract.

Brookhaven, Miss.—The Worthington Construction Co. is assembling its forces to begin grading at this end of the Mississippi Central Railroad extension from Brookhaven to Natchez, Miss. Its contract covers 24 miles from Brookhaven to the Homochitto river.

Brownsville, Texas.—The Brownsville & Gulf Railroad is reported to have been transferred to the St. Louis, Brownsville & Mexico Railway. J. N. Miller was elected president and general manager, and G. T. Foster, vice-president. Some additional construction is proposed.

Brownwood, Texas.—The Brownwood & Cisco Railway Co. is reported to have permanently organized thus: G. H. Connell, president; J. C. Weakley, vice-president; J. A. Austin, secretary; Brooke Smith, treasurer. The survey is finished by F. H. Peters, chief engineer, and estimates are now being made.

Bunkie, La.—An officer of the Texas & Pacific Railway writes the Manufacturers' Record denying the report that the company proposes to build a line from Bunkie, La., to Orange, Texas. He says that no such line is projected.

Charlotte, N. C.—The Seaboard Air Line will apply to the board of aldermen for permission to build several additional yard tracks. W. L. Seddon is chief engineer at Portsmouth, Va.

Covington, Va.—Mr. H. Pierce, engineer of construction Chesapeake & Ohio Railway at Richmond, Va., informs the Manufacturers' Record that the Potts Creek Valley branch starts from the main line near Covington, Va., and goes up Potts creek about 20 miles.

The contractors are Pitts, Dorrier & Co. of Scottsville, Va., and Mr. C. P. Barnett of Covington, Va., is division engineer in charge.

Crowley, La.—Officers of the Kansas City Southern Railroad are reported as confirming a report that the company will build a line through the rice belt via Crowley to New Orleans. A. F. Rust is engineer at Kansas City, Mo.

Denison, Texas.—The Patton & Gibson Company of Atlanta, Ill., informs the Manufacturers' Record that its contract on the Missouri & Texas Railway calls for double-tracking and revision of lines and grades on approximately 100 miles of road between Denison, Texas, and South McAlester, I. T. All grades are to be reduced to four-tenths of 1 per cent.

Denton, N. C.—Construction on the Thomasville & Glen Anna Railroad is reported

completed to a point within two miles of Denton, which is 18 miles from Thomasville.

Durham, N. C.—The Durham & Southern Railroad Co. announces the completion of its line from Durham to Apex, N. C., and the entire line from Durham to Dunn, N. C., will be operated immediately.

Elkin, N. C.—A. G. Click, secretary of the Elkin & Allegany Railroad Co., is reported as saying that surveys have been made for the proposed line from Elkin to Sparta, N. C., and to some point on the Norfolk & Western Railway; also that the line will eventually extend from Statesville to Elkin. J. Respess is chief engineer at Winston-Salem, N. C.

Eureka Springs, Ark.—The St. Louis & North Arkansas Railroad has been purchased at receivers' sale for \$200,000 in the interest of the bondholders, represented by President John Scullin, D. R. Francis, R. C. Kerens, J. F. Shapleigh and Powell Clayton. The line extends from Seligman, Ark., to Leslie, Ark., 130 miles, and extensions are proposed westward from Seligman to Joplin, Mo., and eastward from Leslie to Memphis, Tenn., or else to Helena, Ark. A new issue of securities is proposed and a construction company will probably be organized. S. W. Lee is chief engineer at Eureka Springs.

Fairmont, W. Va.—The Marion Railroad Co. has been chartered to build a line from Fairmont via Fairview to Blockville in Monongalia county, adjoining Marion county, in which Fairmont is situated; capital \$500,000, and the incorporators are J. Y. Hamilton, J. R. Thomas, Jr., J. B. Gregory and J. W. P. Jarvis of Fairview, Thomas W. Fleming, James R. Linn, Frank H. Bailey and Allison S. Fleming of Fairmont.

Florence, Ala.—The Mineral Belt Railway has been incorporated to build a line from Florence to the Tennessee boundary in Wayne county, Tennessee, for the purpose of developing timber and mineral lands; capital \$50,000. The incorporators are M. E. McDonald, A. H. Sherred, Scranton, Pa.; L. A. May, New York; T. H. Allen, Florence, Ala., and J. E. Burr, Scranton, Pa.

Gainesville, Texas.—Reported that engineers for the Gainesville, Whitesboro & Sherman Electric Interurban Railway have finished a part of the survey, and that construction will begin by June 15. G. A. Haslinger of New Orleans is president and John King is vice-president and general manager.

Galveston, Texas.—Official.—No arrangement has been made for any extension of the Gulf, Colorado & Santa Fe Railway from Glen Flora to El Campo or Victoria.

Galveston, Texas.—Reported that the Union Depot Co. will build several additional tracks and also some extensions of existing track. C. F. W. Felt, chief engineer of the Santa Fe Railway at Galveston, can give information.

Houston, Texas.—Reported that contract for the Houston Belt Line, six miles long, has been let to Johnson & Reed. The Houston Belt & Terminal Co. is the corporation in which Sam Lazarus and others are interested.

Huntington, Texas.—The Carter-Kelly Lumber Co. is reported to be building a railroad south from Huntington and midway between the Texas & New Orleans Railway and the Houston East & West Texas Railway. Already 12 miles have been graded. The line is to be extended into and through Tyler county and possibly to Houston.

Jacksonville, Fla.—The St. Johns River Terminal Co. will spend some thousands of dollars in improvements at Jacksonville, including additional trackage in the Springfield yard.

Kansas City, Mo.—The Chicago, Burlington & Quincy Railway will, it is reported, rush work on the double-tracking of its line between Kansas City and St. Joseph, Mo. A 12-mile cut-off is also proposed between Beverly and Waldron. A. W. Newton is division engineer at St. Louis, Mo.

Lake Charles, La.—The St. Louis, Watkins & Gulf Railway proposes to build switching yards around its new freight depot. H. B. Kane is general manager.

Lexington, Ky.—President Louis Des Cognets of the Bluegrass Traction Co. informs the Manufacturers' Record that it is not the intention of the company to build a line from Georgetown to Owenton at this time. This denies a late press report.

Liberty, Mo.—The Clay County Court has granted a franchise to the Kansas City, St. Joseph & Excelsior Springs Electric Railway Co., which proposes to build from Kansas City to St. Joseph, with a branch to Liberty and Excelsior Springs. Joseph J. Heim is president, and W. J. Knepp, secretary of the company.

Suffolk, Va.—Reported that the Southern Railway will build a short branch from Holland to Whaleyville. W. H. Wells is engineer of construction at Washington, D. C.

Talbotton, Ga.—The Atlanta, Birmingham & Atlantic Railway has, it is reported, laid track to a point six miles west of Talbotton.

Tennille, Ga.—President A. F. Daley of the Wrightsville & Tennille Railroad Co. writes the Manufacturers' Record that it is not contemplated to build any extension at present. This denies a press report that an

movement is under way to secure the building of a railroad to connect with either the Atlantic Coast Line or the Seaboard Air Line. In either case about 15 miles of track will be required. The following committee has been appointed: A. M. Wilson, J. C. Betts, J. J. Crowley, George Tatum and W. A. Durrance.

Mt. Sterling, Ky.—The Paris, Mt. Sterling & North Middletown Interurban Railway has organized by electing directors as follows: Robert C. Talbott of Paris, president; John T. Collins of North Middletown, vice-president; Henry A. Power of Paris, treasurer; H. Clay McKee of Mt. Sterling, secretary; W. A. Thomason of North Middletown, J. M. Bigstaff of Mt. Sterling and R. J. Neely of Paris. Survey has been made and right of way is to be secured immediately.

New Orleans, La.—The Louisiana Railway & Navigation Co. is reported to have completed line from New Orleans to Hanson City and from Baton Rouge to Lutcher, La., leaving only 25 miles to be finished to connect up the line, and on this unfinished portion construction is about 30 per cent completed.

Norfolk, Va.—The Norfolk & Western Railway Co. is reported to have purchased a large amount of additional water-front property at Lambert's Point and will extend its terminals there. C. S. Churchill is chief engineer at Roanoke, Va.

Ocilla, Ga.—Mr. J. J. Walker writes the Manufacturers' Record that survey has begun for the extension of the Ocilla & Valdosta Railroad from Ocilla to Macon, Ga., about 90 miles, via Fitzgerald, Rochelle, Hawkinsville and Perry. It is also proposed to extend in the other direction to Valdosta. J. A. J. Henderson is president.

Oklahoma City, O. T.—The Pueblo, Oklahoma & New Orleans Railroad of Oklahoma City has been chartered to build a line from Pueblo, Col., to New Orleans, La., 1050 miles; capital \$3,500,000. The incorporators are R. A. Woolridge, W. C. Burke, George H. Dodson, Warren K. Snyder and John E. Carson, all of Oklahoma City.

Port Barre, La.—C. G. Vaughn, chief engineer in charge of construction, is reported as saying that T. L. Harelson & Co. have been given the contract to build the branch of Morgan's Louisiana & Texas Railroad from Port Barre to Arnaudville, La., 12 1/2 miles.

Rock Hill, S. C.—The Rock Hill Railroad Co. has been organized to build a line from Rock Hill to Spencer, on the Seaboard Air Line; capital \$125,000, of which \$65,000 are subscribed. Among those interested are W. S. Lee, Jr., of the Southern Power Co., John G. Anderson, T. L. Johnson, W. J. Roddy, J. M. Cherry, C. W. F. Spencer, secretary; W. L. Roddy, R. T. Fewell, J. R. Barron, John T. Roddy, Ira B. Dunlap, treasurer, and J. B. Johnson.

Salem, Va.—The Roanoke & Salem Traction Co. has been chartered with \$25,000 capital. O. L. Stearns is president; Chas. D. Denit, vice-president; W. B. Dillard, treasurer; W. H. Tinsley, secretary; R. W. Kline, general manager, all of Salem, Va. John H. Wright of Roanoke, Va., and J. V. N. Moore of Machapongo, Va., are the incorporators.

San Antonio, Texas.—The Texas Railway Co., recently incorporated, has, it is reported, awarded contract to the Rock Island Construction Co. of Chicago to build its proposed line from San Antonio to Port O'Connor. L. A. Guerenger has, it is reported, been appointed chief engineer.

Shelby, N. C.—Reported that A. E. Cogbill of Boykin, Va., and others have bought lands of the Middleby Land & Lumber Co. and will build a railroad 25 miles long to develop the tract. About \$100,000 will be expended.

St. Louis, Mo.—Mr. F. N. Johnson, president of the Scullin-Gallagher Iron & Steel Co., writes the Manufacturers' Record confirming the report of the incorporation of the Des Peres Valley Railroad Co., capital \$50,000, for the purpose of controlling the steel company's railroad and equipment. It is expected to increase the length of main line and sidings from time to time, but the work will be done by the company and no contracts will be let.

Talbotton, Ga.—The Atlanta, Birmingham & Atlantic Railway has, it is reported, laid track to a point six miles west of Talbotton.

Tennille, Ga.—President A. F. Daley of the Wrightsville & Tennille Railroad Co. writes the Manufacturers' Record that it is not contemplated to build any extension at present. This denies a press report that an

extension was about to be built from Ten-
nille to Sandersville.

Tremont, La.—J. H. Scott, chief engineer of the Tremont & Gulf Railroad, will receive bids until noon on Monday, June 25, for grading and bridging a 27-mile extension. This will require 375,000 cubic yards of embankment and 260,000 cubic yards of excavation, these figures being approximate. The bridging is about 4800 linear feet.

Trinity, Texas.—George H. Gibson, one of the organizers, is reported as saying that about 15 miles have been completed on the Beaumont & Great Northern Railway, projected from Trinity to Beaumont. The present contract is for construction only as far as Livingston. The Carlisle Lumber Co. of Trinity is building the line, but the International & Great Northern Railroad is said to be back of the plan.

Versailles, Ky.—The Central Traction Co. of Kentucky has filed map and profiles for the Versailles and Frankfort line showing the route to be along the Frankfort turnpike.

Warrenton, Va.—J. F. Tyson has bought water-power rights at Embry, Va., on the Rappahannock river, and it is said that he represents a New York syndicate which proposes to build an electric railway along the stream.

Wheeling, W. Va.—Reported that the Baltimore & Ohio Railroad will raise the track on the Ohio River division between Benwood and Moundsville, W. Va., four and one-half miles. D. D. Carothers is chief engineer at Baltimore.

Wilson, N. C.—Reported that Good, Hart & Co. have been awarded contract to build 30 miles of line on the Raleigh & Pamlico Sound Railroad and will establish headquarters at Wilson. Their work will extend 15 miles east and 15 miles west of Wilson.

Street Railways.

Atlanta, Ga.—The Georgia Railway & Electric Co. gives notice that it will apply for a franchise to build an extension on Whitehall street and Stewart avenue to the city limits.

Gulfport, Miss.—The Gulfport & Mississippi Coast Traction Co. has connected up its track from Gulfport to Biloxi, Miss., 12 miles, and it is to be put in operation immediately. About an equal amount of line is yet to be built to Pass Christian. Capt. J. T. Jones is president at Gulfport.

Hattiesburg, Miss.—The Hattiesburg Traction & Power Co. has received three carloads of rails for its proposed street railway, and it is expected that construction will soon begin.

Oklahoma City, O. T.—John W. Sharrett, general manager of the Oklahoma Railway Co., is reported as saying that four miles of extensions will be constructed immediately in this city, and that 15 miles will be completed in the city before the end of the year. The Interurban proposition is not at present being considered.

Salisbury, N. C.—The Salisbury & Spencer Street Railway Co., which proposes improvements, has elected officers as follows: President, E. M. Deans of Grand Rapids; vice-president, N. B. McCandlers of Salisbury; secretary, Frank G. Deans of Grand Rapids; treasurer, Dwight Smith of Salisbury.

Tampa, Fla.—Reported that a company has been organized to build the proposed electric railway from Tampa to Sulphur Springs, about six miles. The directors are T. H. Synon of Norfolk, Va., president; H. H. Kirkpatrick, vice-president, Johnson City, Tenn.; Eugene Haltsinger, secretary and treasurer; D. E. Frost and Louis Brill.

Yazoo City, Miss.—Kirkpatrick & Johnson, engineers, of Jackson, Miss., have been engaged to supervise construction of the Yazoo City Electric Railway.

Lafitte Welding Plates.

In the case of many blacksmith shops that do not yield a profit to the operator, and in those in which the profits should be greater, the cause is due in measure to the methods employed in working iron. It is known that, because of difficulty experienced in working steel castings, thousands of dollars' worth of these castings are thrown on the scrap pile. For the benefit of the trade the Phillips-Lafitte Company, Pennsylvania Building, Philadelphia, Pa., has issued a pamphlet describing in detail a welding plate that this company manufactures, claiming that the chemical action of the plate increases instead of decreasing the strength of the weld, and enabling a blacksmith to make a weld with a low heat and at a saving of 33 per cent. in time and fuel. The plate is made in one size, 4x8 inches, and is checkered so that any desired size can be broken off by hand without loss or waste. The Phillips-Lafitte Company also manufactures welding powder, tempering powder, brazing plates, etc.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Air-pumping Plant.—Doe Creek Lumber Co., Sparta, Tenn., wants an air-pumping plant.

Alcohol Machinery.—J. F. Adams Engineering Co., Calle de Cuba 76 y 78, Cuarto 44, Havana, Cuba, wants machinery for producing alcohol from Yuca.

Automatic Sprinklers.—C. G. Sayre, 145 Sayre street, Anderson, S. C., wants address of manufacturers of automatic sprinkler equipments for cotton warehouses and mills.

Bell.—T. D. Wooten, Gainesboro, Tenn., wants bell for school building.

Blackboards.—T. D. Wooten, Gainesboro, Tenn., wants slate for blackboards.

Blacksmith Tools.—A. M. Paret, Eola, La., wants blacksmith tools.

Boiler.—Robbecke Milling Co., Booneville, Ark., wants boiler, 72x16 feet.

Boiler.—See "Engine and Boiler."

Boiler.—Batesville Yarn & Cordage Co., J. C. Price, Batesville, Miss., will buy 150-horse-power water-tube boiler.

Boilers.—See "Engines and Boilers."

Boilers.—C. B. Allen, Johnson City, Tenn., wants two 150-horse-power boilers. (See "Engines and Boilers.")

Boilers.—Muskogee Electric Traction Co., Ira L. Reeves, general manager, Muskogee, I. T., wants three 250-horse-power tubular boilers.

Boiler Tools.—See "Machine-shop Tools."

Boring Mill.—Mountain City Foundry and Machine Works, corner Whitmire and Academy streets, Greenville, S. C., wants a boring Ark., wants borer, 72 inches by 16 feet.

Bottling Machinery.—Geo. T. Parker, Kelford, N. C., wants price-lists, etc., on machinery for bottling coco-cola and other non-alcoholic beverages; also estimates as to cost of plant of small capacity.

Bowling Alleys.—M. H. Dawson, care Ocean City Pier & Improvement Co., Ocean City, Md., wants prices and earliest delivery on bowling alleys.

Brick Machinery.—Ennis-Crisp Brick Co., Ennis, Texas, wants complete equipment for four-mold press-brick plant; 20,000 daily capacity.

Bridgework.—Bids will be received until June 18 for a new span in Brazos river wagon bridge. For particulars address J. D. Harvey, county judge, Hempstead, Texas.

Building Materials.—James R. Lawrence, Greenville, S. C., wants catalogues and price-lists on skylights, metallic doors and window frames, sash and doors.

Building Materials.—L. S. Agnor & Son, Lynchburg, Va., wants prices on brick, rough and dressed lumber, composition work, laths, etc.

Building Materials.—Stone Building Supply Co., Greensboro, N. C., wants price on 4000 square feet of No. 1 asphalt flax felt.

Building Materials.—John J. Earle, Paxton, Fla., wants prices on sash, doors, blinds, mantels, moldings, lime, cement, plaster, plumbing outfit, builders' hardware, screens, etc.

Building Materials.—M. H. Dawson, care Ocean City Pier & Improvement Co., Ocean City, Md., wants Georgia pine for hall building, roofing materials, etc. State lowest price and earliest delivery.

Building Materials.—Potomac Engineering & Contracting Co., 211 St. Paul street, Baltimore, Md., wants prices on flooring and plastering laths.

Canal Construction.—Cypress Island Drainage District Board, J. G. Broussard, secretary, St. Martinsville, La., will let contract for the construction of a canal six to seven miles long and 45 feet wide. Plans and specifications can be obtained from the secretary.

Canal Work.—Rio Grande Construction Co. will let contract for 500,000 yards of canal

work at Bessie, Texas, 20 miles north of Brownsville. Address O. E. Moore, Lonsboro, Texas, or S. A. Robertson, Bobbin, Texas.

Cannery Equipment.—J. E. Hellams, Gordo, Ala., wants addresses of manufacturers of machinery and supplies for canning factory.

Coal Bins.—Southern Naval Stores Distilling Co., E. J. Bischoffberger, secretary, Freedom, Pa., wants to correspond with manufacturers of bins similar to those used by railroads at yards for supplying engines with coal, each bin being charged with enough material to fill a separate-sized receptacle, having a drop front which, when released, empties the contents and the front springs back in original position and closes for refilling. It is desired to obtain some device of this kind to use in connection with charging distilling retorts.

Concrete-block Machinery.—R. L. Purnell, Ocean City, Md., wants prices, catalogues etc., on machinery for manufacturing concrete blocks and other artificial stone.

Concrete Mixer.—C. G. Viele, manager Cement Block Co., Salisbury, N. C., wants a small concrete mixer for hand or power, capacity 4 to 10 cubic yards daily.

Construction Work.—Bids will be received until June 21 at the United States engineer office, Charleston, S. C., for furnishing stone and constructing mound on south jetty at Winyah Bay, S. C. Information furnished on application; G. P. Howell, captain, engineers.

Conveying Machinery.—Dabney Brick Co., Newport News, Va., wants belt conveyors.

Cooperage.—Garrett & Co., Norfolk, Va., wants cooperage for wine.

Corn-mill Machinery.—Dabney Brick Co., Newport News, Va., wants rolls for making cracked corn and corn and oat chops.

Cotton-mill Machinery.—Batesville Yarn & Cordage Co., J. C. Price, Batesville, Miss., wants machinery to manufacture about 1200 pounds of cotton rope and twine daily; will also want spindles, but number not decided. (See "Engine and Boiler.")

Creosoting Outfit.—Creosoting Outfit, care Manufacturers' Record, Baltimore, Md., wants prices on a creosoting outfit to be used in Louisiana.

Drainage System.—Executive board Kentucky Confederate Home will receive bids until June 9 for furnishing and laying vitrified drain pipe, beginning at terminus of present discharge pipe leading from septic tank and extending an indefinite distance through and beyond Peeble valley, Oldham county, Kentucky. Bids must be made for drain pipe laid complete, including excavating and refilling trenches. Specifications and information can be obtained from Clarke & Loomis, architects, 502 Fourth avenue, Louisville, Ky.; Bennett H. Young, president of board.

Dredging.—Atchafalaya Bay Ship Channel Co., Morgan City, La., wants bids for dredging a 15-foot channel through Point au Fer Reef at the mouth of Atchafalaya bay near Morgan City.

Electrical Equipment.—See "Railway Equipment (Electric)."

Electrical Equipment.—C. B. Allen, Johnson City, Tenn., wants electrical equipment.

Electrical Equipment.—University of Virginia, Edwin A. Alderman, president, Charlottesville, Va., wants a 75-kilowatt generator, combined unit.

Electrical Equipment.—Dabney Brick Co., Newport News, Va., wants one electric motor.

Electric-light Plant.—Robbecke Milling Co., Booneville, Ark., wants equipment for electric-light plant.

Elevator.—W. L. Converse, Valdosta, Ga., will probably want an elevator.

Engine and Boiler.—Doe Creek Lumber Co., Sparta, Tenn., wants engine and boiler.

Engine.—H. C. Eddins, Orange, Va., wants a gasoline engine, about five horse-power.

Engine.—P. O. Box 861, Norfolk, Va., wants a second-hand Corliss engine of standard make: about 60 horse-power.

Engine.—C. E. Wildasin, Glade Spring, Va., wants agent's price on 65-horse-power Corliss engine.

Engine.—Garrett & Co., Norfolk, Va., want small engine.

Engine.—A. M. Paret, Eola, La., wants gasoline engine.

Engineer.—Committee of City Council, Orangeburg, S. C., will meet at city hall June 11 to select an engineer to make surveys and furnish plans, drawings, specifications and estimates for a sewerage system. Address L. H. Wannamaker, city clerk and treasurer. Amount available for construction is \$50,000.

Engine and Boiler.—Batesville Yarn & Cordage Co., J. C. Price, Batesville, Miss., will

buy 125-horse-power Corliss engine and 150-horse-power water-tube boiler.

Engine and Boilers.—C. B. Allen, Johnson City, Tenn., wants one 250-horse-power engine and two 150-horse-power boilers.

Engines and Boilers.—T. L. Edmonds & Sons, Winesap, Tenn., want prices on engines and boilers.

Fire-protection Apparatus.—See "Automatic Sprinklers."

Fire-protection Equipment.—Picksens (S. C.) Mill, W. M. Hagood of Easley, S. C., president, will buy fire protection equipment for cotton factory; Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., engineers in charge.

Glass Jars.—Cooley & Horner, Miami, Fla., want to purchase glass jars to be used in exhibiting fruit.

Hardware.—M. H. Dawson, care Ocean City Pier & Improvement Co., Ocean City, Md., wants irons and bolts (all ironwork will be galvanized); will require about 50,000 pounds of braces and bolts, copper or composition tacks suitable to drive in knots or piling to keep out salt-water worms. Specifications of iron, braces and bolts furnished on application. State lowest price and earliest delivery.

Heating and Plumbing.—W. J. Brown, Model Plumbing Co., Beaumont, Texas, wants plumbing and heating equipment to extent of about \$1,000 for refitting and remodeling Crosby Hotel.

Heating Apparatus.—W. L. Macatee, Houston, Texas, wants estimates on steam, hot-water or hot air heating plant.

Heating Apparatus.—University of Virginia, Edwin A. Alderman, president, Charlottesville, Va., wants five hot-water heating plants and one steam plant.

Ice Plant.—See "Refrigerating and Ice Plant."

Iron Works.—Henry B. F. Macfarland, Henry L. West and Chester Harding, commissioners, District of Columbia, Washington, D. C., will receive bids until June 23 for iron galleries, rails, stairs, etc., District pumping station. Forms, specifications and necessary information may be obtained on application.

Laundry Machinery.—W. R. Reynolds, Lamar, S. C., wants small laundry outfit; second-hand plant preferred.

Lumber.—Benmont Iron Works, Beaumont, Texas, wants 60,000 feet of yellow pine of dimensions 6x6, 5x12, and sheeting 1x12.

Machine-shop Tools.—J. A. Lloyd, care Lloyd Boller and Machine Works, Lufkin, Texas, wants engine lathes, shaper, drill press, punch and shears, bending rolls for boiler shop, etc.

Machine Tools.—Atlanta Utility Works, Inc., East Point, Ga., wants one second-hand plain milling machine, either Cincinnati or Kempsmith; state condition and full particulars.

Machine Tools.—Neches Iron Works, Beaumont, Texas, wants double head driving-wheel lathe of a 79 or 80-inch swing, either new or second-hand.

Machine Tools.—See "Blacksmith Tools."

Machine Tools.—See "Boring Mill."

Machine Tools.—J. G. Humphrey, Wilmington, N. C., wants second-hand lathe six or eight feet long. Give complete description and lowest cash price, also freight rates from shipping point to Wilmington, N. C., and Georgetown, S. C.

Machine-tools Equipment.—W. J. Montgomery, Marion, S. C., wants equipment for manufacture of agricultural implements. (See "Woodworking Machinery.")

Mill Supplies.—Picksens (S. C.) Mill, W. M. Hagood of Easley, S. C., president, will buy mill supplies for cotton factory; Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., engineers in charge.

Mill Supplies.—Victory Manufacturing Co., H. W. Lilly, president, Fayetteville, N. C., will buy general mill supplies for 25,000 spin-dle plant; Lockwood, Greene & Co., Boston, Mass., and Greenville, S. C., engineers in charge.

Naval Supplies.—Bids will be received until June 19 at bureau of supplies and accounts, Navy Department, Washington, D. C., for naval supplies as follows: Schedule 587—Portland cement, broken stone and Virginia pine; Schedule 589—Copper rivets, paint brushes, window shades, brass wire, wire rope, nickel-steel chain, blocks, hardware and tools, photographic supplies, oak ties, ingot and sheet copper, pig-lead, aluminum, steel rails, fuel oil, rosin, brass tubing, flour, rye straw, stationery, record cards, glass, silica mold wash, oyster shells, silver lead, bituminous facing. Applications for proposals should designate the schedule desired by number. Blank proposals will be furnished

on application; H. T. B. Harris, paymaster-general, U. S. N.

Oil-mill Machinery.—Buford Oil & Fertilizer Co., Buford, Ga., wants one press 20-ton cottonseed-oil mill.

Paint.—Ingram-Day Lumber Co., G. R. Lindsay, secretary, Lyman, Miss., wants to purchase cold-water paint.

Paper Manufacturing.—J. A. Arnold, secretary Chamber of Commerce, Beaumont, Texas, wants information regarding the manufacture of paper from rice stock.

Paving.—Street Committee, Jackson Beall, chairman, Scottsville, Va., will open bids June 15 for laying approximately 1600 square yards cement sidewalks, 1300 linear feet cement curbs and constructing in the sidewalks a small reinforced concrete arch. Specifications may be seen at the chairman's office. Bids must be made on sheets prepared for the purpose, and no bid will be considered unless all items are bid upon. Certified check for \$100 must accompany each bid. Usual rights reserved.

Paving.—Bids will be received until June 18 by the street committee, H. S. Bird, chairman, Williamsburg, Va., for about 5000 square yards of granolithic sidewalk. Specifications can be seen at the office of the chairman. Usual rights reserved.

Paving.—Bids will be received until June 15 at office of T. C. Moffat, clerk board of commissioners of Ohio county, Wheeling, W. Va., for paving National road with brick from the Wheeling Park to Cecil Place; also for paving with brick one mile of the River road from city limits. Bids will also be received for stone, brick, wood, concrete and hollow-tile curbing for the roads. Specifications can be seen at office of H. L. Arbenz, county engineer, and at the clerk's office. Usual rights reserved.

Paving Equipment.—W. C. Caldwell, Jasper, Fla., wants addresses of firms manufacturing or handling machinery and tools used in asphalting streets and sidewalks.

Paving Material.—J. H. Macleary, Suffolk, Va., wants to correspond with manufacturers of octagon granolithic blocks to be used for sidewalk purposes; also square blocks.

Piledriver.—Southern Purchasing Agency, Valdosta, Ga., wants a medium-sized piledriver.

Piping.—Tidewater Mineral and Oil Corporation, Room 518, Board of Trade Building, Norfolk, Va., wants prices on oil-well casing of different sizes in earland lots.

Piping.—See "Water-works."

Piping (Gas) Construction Work.—Burning Springs Natural Gas Co., J. L. Rawlings, secretary, Burning Springs, Ky., wants contractor for construction work to investigate gas properties, see what gas is available and estimate the cost of line from Burning Springs to London, Ky., and equipments for London, and make bid on same.

Pumping Plant.—See "Air-pumping Plant."

Pumps.—Garrett & Co., Norfolk, Va., want wine pumps.

Railroad Construction.—Bids will be received until June 25 at the office of J. H. Scott, chief engineer, Tremont & Gulf Railroad, Tremont, La., for grading and bridging of 27-mile extension of Tremont & Gulf Railroad; approximate quantities as follows: Embankment, 375,000 cubic yards; excavation, 260,000 cubic yards; bridging, 4800 linear feet. Profile, plans and specifications can be examined at chief engineer's office. Company reserves usual rights.

Railway Equipment.—Joseph E. Bowen, 902 Bank of Commerce Building, Norfolk, Va., wants several 26-inch-gauge flat cars.

Railway Equipment.—Southern Seating & Cabinet Co., Jackson, Tenn., wants about four miles of rail for a light tramroad; prefers to lease rails.

Railway Equipment.—Wagner Coal Co., Mossey Bottom, Ky., wants prices on car irons.

Railway Equipment.—Stephen Burke, Belize, British Honduras, Central America, wants to correspond with manufacturers of traction engines for use in hauling bananas. Quote price and give full particulars; if possible, the draw-bar pull.

Railway Equipment (Electric).—Kirkpatrick & Johnson, engineers, Jackson, Miss., want engine, electric equipment and track materials.

Railway Equipment.—Peacock's Iron Works, Selma, Ala., wants 60 tons of 20-pound good relay rails for Louisiana delivery.

Railway Equipment.—McCoy Brick & Tile Co., Augusta, Ga., wants 3500 linear feet of second-hand 16-pound rails with splices and bolts.

Railway Equipment.—Kenebeck-Hammond-Quigley Construction Co., Beaumont, Texas, wants two 60-ton locomotives, 10-wheelers;

also 30 60,000-pound capacity flat cars. Address J. D. Sweet, purchasing agent.

Refrigerating and Ice Plant.—Houston Packing Co., J. T. Gibbons, manager, Houston, Texas, will let contract for one 150-ton refrigerating machine and 30-ton ice tank. Roofing.—See "Building Materials."

Refrigerating Machinery.—E. B. Perkins, Paragould, Ark., wants small refrigerating outfit, about 12 or 16-ton capacity, direct connected; new or second-hand.

Roofing.—Auburn Mercantile Co., Auburn, Miss., will probably want roofing.

Roofing.—C. G. Sayre, 145 Sayre street, Anderson, S. C., wants addresses of gravel-roofing contractors.

Sacking Machine.—See "Scales."

Scales.—Dabney Brick Co., Newport News, Va., wants receiving and sacking scales.

Sewerage-system Engineer.—See "Engineer."

Shingle Machinery.—Doe Creek Lumber Co., Sparta, Tenn., wants shingle machinery.

Siding.—Garrett & Co., Norfolk, Va., want galvanized corrugated iron.

Skates.—M. H. Dawson, care Ocean City Pier & Improvement Co., Ocean City, Md., wants prices on roller skates.

Smokestack.—Muskegee Electric Traction Co., Ira L. Reeves, general manager, Muskegee, I. T., wants a smokestack.

Steam Plant.—Picks (S. C.) Mill, W. M. Haggard of Easley, S. C., president, will buy steam plant for 15,000-spindle and 450-loom cotton mill; Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., engineers in charge.

Sugar Machinery.—J. F. Adams Engineering Co., Calle de Cuba, 76 y 78, Cuarto 44, Havana, Cuba, wants complete equipment for sugar plant to cost from \$10,000 to \$20,000.

Tank.—See "Water-works."

Tin-box Manufacturers.—International Mineral Remedy Co., W. W. Rucker, secretary, Pawnee, Okla., wants prices on tin boxes for talcum, tooth and toilet powders and ointments.

Tobacco Machinery.—Tennessee-Kentucky Tobacco Co., 716-717 First National Bank Building, Nashville, Tenn., wants 10 wood finishers, 200 12x12 iron plates for finishers, one jacketed kerosene kettle, 125-gallon capacity; one stem roller, one power wringer, 5000-pound capacity.

Wagon-factory Supplies.—Bender Wagon Co., Texarkana, Texas, wants dry-cast felloes 3x5 for 6-foot wheels and dry felloes 3x4, 3x4½, 3x5 for 42-inch wheels.

Wagon Material.—A. M. Paret, Eola, La., wants wagon and buggy material.

Water Heater.—J. F. Adams Engineering Co., Calle de Cuba, 76 y 78, Cuarto 44, Havana, Cuba, wants addresses of manufacturers of gasoline or alcohol water heaters to boil 10 tons of water per 24 hours.

Water-works.—City of Chatham, Va., will receive bids until June 15 for furnishing material and constructing two small pumping stations, one concrete reservoir and laying between 8000 and 9000 feet of cast-iron pipe and installing machinery. For plans and specifications address J. H. Hargrave, Jr., mayor, or J. N. Ambler, engineer, Salem, Va.

Water-works.—Town of Brooksville, Miss., J. N. McMorries, clerk, will receive plans, specifications and bids until July 3 for boring a 1000-foot 6-inch artesian well, erecting a 25,000-gallon tank and laying water mains in the business streets. Certified check for \$50 must accompany each bid. Usual rights reserved.

Well-drilling.—See "Water-works."

Woodworking Machinery.—Davis & Stephens, 714 Main street, Joplin, Mo., want to correspond with parties having special woodworking machines.

Woodworking Machinery.—See "Shingle Machinery."

Woodworking Machinery.—W. J. Montgomery, Marlinton, S. C., wants machinery for manufacturing sash, doors and blinds. (See "Machine works Equipment.")

Woodworking Machinery.—Munday-Teague Lumber Co., Statesville, N. C., wants a double-surface dresser and matcher, buzz planer, hand saw, cut-off saw and shaper.

Messrs. Freund & Crawford, Architects.

Announcement is made that Messrs. John Freund, Jr., and J. Bertrand Crawford have formed a partnership under the title of Freund & Crawford to act as architects and consulting engineers. They have established offices at Room 20, Builders' Exchange Building, No. 2 East Lexington street, Baltimore, Md., where they will receive inquiries for plans and specifications and details of engineering for all kinds of structures.

SOUTHERN CITY INDUSTRIAL NOTES

[Special Correspondence Manufacturers' Record.]

Lake Charles, La., May 24.

A glance at manufacturing and general business interests in and around this city shows important interests in keeping with the city's size, population and advantages. Some brief reference to the leading industrial enterprises is permissible. The Lake Charles Ice, Light & Water-Works Co. manufactures 50 tons of ice daily, and is increasing this to the extent of 60 tons by installing another machine. The equipment used is that built by the Frick Company of Waynesboro, Pa. An electric plant is also operated to furnish light and power, and to the local street-railway system, which is also owned by the company. In this connection it is interesting to note that the city has just granted to the company a 15-year franchise for the railway, a 20-year franchise for supplying electricity for illuminating and power purposes, and a 20-year franchise for supplying water. This follows a recent decision against municipal ownership. The machinery used in the electrical plant is from the Westinghouse Electric & Manufacturing Co. of Pittsburgh and is of more than 1000 kilowatts capacity, while the turbine installed is said to be the first put in position south of the Mississippi river. In rolling stock the street-railway system is fully up to date, all of its equipment being new and is to be added to at once, three motor cars of the Brill patent having been ordered from the American Car Co. of St. Louis. About a month ago a valuation of \$1,000,000 was placed on the enterprises of the Lake Charles Ice, Light & Water-Works Co. The officers are: President, J. A. Landry; vice-president, T. J. Bird; treasurer, D. J. Landry, and secretary, P. O. Moss.

The Lake Charles Carriage & Implement Co. carries a large stock of farm implements, stationary engines of all kinds, saw-mills, irrigation pumps, belting and hose, together with buggies, carriages, wagons, harness and saddlery. Its officers are: D. R. Swift, president; H. W. Lanz, vice-president, and W. E. Patterson, secretary and treasurer. They have established a large and prosperous business, and have one of the leading enterprises of its kind in this section.

The Reiser Machine Shops is operating an up-to-date plant with lathes, drills, steam hammers and accessories of a big workshop, and conducts a large business in mill, locomotive, marine and irrigation work.

Mr. Reiser, president of the company, has long been identified with practical work having for its object the development of Lake Charles in industrial and other lines.

Among other manufacturers which Lake Charles is capable of carrying successfully, to quote Mr. Reiser, is a paper mill. This is due to the presence of gum trees in inexhaustible supply nearby, while cheap oil fuel as a motive power is another attractive feature. Mr. Reiser is prepared to receive information of a technical character with regard to paper manufacture.

The Calcasieu Iron Works & Mill Supply Co. has an up-to-date foundry, machine and pattern shop. It has a well-deserved reputation for boiler-making, while carrying a complete line of mill supplies. Saw-mill machinery, irrigation and tramroad machinery are also manufactured. Mr. A. McKinnon, president and general manager, is a man of 20 years' practical experience in mechanical lines and widely known in Southwestern Louisiana. The company is Southern agent for the Wagener duplex pumps and the Russell stationary engines. In addition to the stock carried may be mentioned gas and gasoline engines.

Mr. Samuel Kaufman, agent for the McCormick reapers and mowers, with a heavy stock of threshing machinery and farm implements of all kinds, is one of the pioneer business men of this city. He handles also the J. Deere implements, also buggies, carriages, wagons and saddles of every description.

Financial interests are well represented in the Calcasieu National Bank, which has a capital stock of \$150,000 and a surplus of \$100,000. The condition of this thriving institution is fully demonstrated in its recent report issued April 6, which shows resources amounting to \$2,023,466.71. Its deposits amount to \$1,638,295.29. Included in the resources is the banking-house and equipment, valued at \$50,000, while undivided profits of \$52,434.42 are on hand. The directors and other officers of this bank are among the best-known business men of the city, well known for their position in the community. Mr. H. C. Drew is president; George Horridge, vice-president; J. A. Bel, vice-president; Frank Roberts, cashier, and E. M. Hazzard, assistant cashier.

Mr. J. Geo. Fredericks, contractor for laying cement sidewalks and concrete construction work generally, reports a steadily-increasing demand in Southwestern Louisiana

and Texas for his special character of work. He is a practical man, and in the conduct of municipal contracts, as well as in less important contract work with regard to size, his personal attention and supervision is given them.

Among other contracts completed by Mr. Fredericks may be mentioned six miles of cement sidewalk for the city of Lake Charles. Besides having an enviable reputation as a contractor in all varieties of concrete construction work, Mr. Fredericks also contracts for curb, tiling and sewer-pipe work.

The J. A. Bel Lumber Co. has a big plant here for the manufacture of lumber, and the demand for its product continues to increase steadily. Recently the company completed the installation of a Wilkins gang system, thereby increasing its capacity in the Lake Charles mill about 75,000 feet daily.

BEAUMONT.

[Special Correspondence Manufacturers' Record.]

Beaumont, Texas, June 1.

Thriving business conditions obtain here in Beaumont, the oil city of the Southwest. There are many industries in operation, some of the most important being due to the development of the valuable oil fields in this territory. Mention of several of these enterprises is permissible.

One is the Marine Iron Works, which has just completed an ironclad structure which will be used as a lathe and machine shop. The new machinery, which has been purchased, is expected to arrive by June 5, when it will be at once set, lined up and operated. The machines consist, in part, of a full set of lathes of various dimensions of the Lodge & Shipley make, planing machines of the Cincinnati Tool Works, Sibley & Ware drill presses, Cleveland automatic lathes for gas-engine work, Crocker-Wheeler electric-power outfit, etc.

The Marine Iron Works will include in its operations the manufacture of gasoline and other forms of launches from small pleasure craft to those of large commercial proportions. Timber for this class of craft is obtainable in the vicinity of Beaumont in unlimited quantities. The manufacture of all sizes of gasoline engines, including those of the doubly-opposed cylinder type, will also be a feature of the plant. The automobile department will not be the least interesting feature of the business. Ample ground space has been secured for the expected enlargement of this plant in future. This company is a combination of clerical and technical experience, respectively, Messrs. J. Lee Carroll and W. Claude Holland being the members. Mr. Carroll will attend to the office and financial end, and with his natural bent for mechanics, together with his commercial training, the responsibility of his position will sit lightly.

Mr. Holland, in addition to his early training in the Agricultural and Mechanical College Station and the Texas State School of Mechanical Engineering, in which institution it may be said he was chief engineer, has also had experience of a practical nature, well qualifying him for the arduous and abstruse mechanical problems he will be frequently called upon to solve as head of the mechanical-engineering department of his firm.

The E. L. Wilson Hardware Co. began business in a modest way a few years ago when nothing but an array of unsightly shacks constituted what is now Beaumont. It may now be ranked as one of the most important enterprises in its line in Southeast Texas or Southwest Louisiana. In addition to the three-story building on Pearl street, the company has a large warehouse on the Southern Pacific tracks, and but recently built an addition to main building here. Running in an L shape from the retail department, the company formerly had an extensive sheet-iron warehouse fronting on Bowle street. This has been replaced by a handsome gray-brick structure with granite columns.

The E. L. Wilson Hardware Co. has been a progressive concern in every sense of the word, and while it was a pioneer in building up the wholesale interests of Beaumont, it is doing just as much today in proportion to the city's growth. The officers of the company are: G. R. Ferguson, president; W. S. Davidson, vice-president, and John L. Keith, secretary and treasurer.

The Model Plumbing Co. is another important enterprise. Its president, W. J. Brown, has closed, among recent contracts, the following: Plumbing and heating equipment for sanitary, Abbeville, La., at a cost of \$9000. The building will cost between \$45,000 and \$50,000. Contractor Gordy of Morgan City, La., having already purchased the ma-

terial. Mr. Brown has also contracted for the needed plumbing and heating outfit, and the entire building must be completed according to contract by September 1.

Mr. Brown is in the market for plumbing and heating equipment for the Crosby Hotel, Beaumont, Texas, one of his latest contracts. He will want material of this character up to \$14,000.

One of the leading enterprises supplying equipment for the oil-well trade centering at Beaumont, Texas, is the National Supply Co. of Toledo, Ohio. This company has a branch house at Beaumont, where it carries a large stock of equipment and supplies for oil-well

drillers and operators. It also has a branch in Pittsburg. Mr. M. W. Hendershot is manager of the Beaumont branch.

There is a good demand for electrical machinery, repairing and supplies at Beaumont, Texas, and G. W. Tugge of that city is assisting to meet the demands of the trade. Mr. Tugge handles everything electrical, and has established a reputation for general electrical motor and dynamo repair work, besides conducting a general electrical construction business. The Tugge Machine Shops are equipped with modern machinery and have a force of skilled machinists.

JOHN BANNON.

Fort Wayne Electric Works, Fort Wayne, Ind. His headquarters are at Fort Wayne, and he is acting in the capacity of a special representative for the sale of meters, in which the Fort Wayne Company has a large and increasing trade. Mr. S. O. Ochs, who was formerly associated with the Stanley Instrument Co., Great Barrington, Mass., is now representing the Fort Wayne Electric Works in its New England territory, with his headquarters at Boston. He is well known to the electrical fraternity throughout the New England States, including New York.

Inventor of the Koerting Gas Engine.

At the celebration of the seventy-fifth anniversary of the Koeniglich Preussische Technische Hochschule of Hanover, Germany, one of the most prominent scientific institutions in the world, the honorary degree of doctor of engineering was conferred on Mr. Ernst Koerting, the noted European engineer (of the well-known firm of Gebr. Koerting, A. G. Koertingsdorf, Hanover), for his scientific researches and discoveries in gas engines and other important branches of engineering. Dr. Koerting lives in Pegli, Italy. He is interested in a number of large enterprises in the United States, among them the De La Vergne Machine Co. of New York, as well as the Schutte-Koerting Company of Philadelphia, and is at present in this country.

The Texas Boiler Works.

The Texas Boiler Works of Beaumont, Texas, has established a high reputation for boilers and tank work generally. The three members who compose the firm—F. S. Dunn, J. F. Sweeney and H. C. Ruth—are men of practical experience in turning sheet iron into tanks of all sizes and boilers of various capacities. Their plant is located admirably with regard to transportation facilities, being situated on the Kansas City Southern Railroad and Santa Fe systems. The boiler shops are well equipped with up-to-date sheet-iron workers' appliances and machinery, and a staff of skilled boilermakers is permanently employed. The Texas Boiler Works is agent for the Southern Engine and Boiler Works of Jackson, Tenn., and Harry Bros., tank builders, Dallas, Texas.

Peacock's Iron Works.

One of the oldest plants of its kind in the South is Peacock's Iron Works at Selma, Ala. This plant is equipped throughout in the most modern manner, and the market for its products is steadily widening and being met with promptness. Its output includes anti-friction roller-bearing steel dry-kiln trucks, car wheels and cars of all sizes and kinds. The logging cars built are shipped to various points throughout the South, including large orders in Louisiana and Florida, while a recent large contract was 40 cars for the United States government to use at the Brooklyn navy yards. Peacock's Iron Works was established in 1863, and it recently added an office building and warehouse to its facilities and is carrying a full line of mill supplies of all kinds.

Stroudsburg Engine Works.

Those users of steam power who are interested in the latest developments in steam engines and the most recent news regarding engine builders are advised that the Stroudsburg Engine Works of Stroudsburg, Pa., has been completely reorganized. With this reorganization comes an increase in capital stock, and for several weeks the company will be engaged in making improvements to its plant in preparation for an increased capacity and output. Under the present management purchasers of steam engines will obtain prompt delivery from the Stroudsburg people. The excellent standard of the engines heretofore built at the Stroudsburg Engine Works will be maintained, and the improved facilities will result in better satisfaction generally to the trade.

A Specimen of "Hustle."

A specimen of the kind of "hustle" which has made American manufacturers foremost in the marts of the world is seen in the action taken by the General Electric Co. of Schenectady, N. Y., in connection with the recent disaster at San Francisco. The company established its main office in the Union Savings Bank Building at Oakland, Cal., immediately after the fire, as well as a local office at No. 1759 Geary street in the burned city. It has now leased a suite of rooms in the new Monadnock Building, ready June 15. For handling the present business a half-block of land has been leased in Emeryville in close proximity to both the Santa Fe and Southern Pacific Railroad tracks. A temporary building is about completed for taking care of stock, and work has already been started on a warehouse, 80,000 square feet, at the south end of the block, bounded by Kansas, Rhode Island, 15th and Alameda streets.

At the temporary warehouse 40 cars of material have been housed, and 19 cars of additional apparatus is now waiting to be unloaded, with 30 or 40 more cars en route from Schenectady. Additional cars are being shipped from the company's factories, so that the stock at San Francisco will soon be complete. At present the company is in excellent condition to fill orders as rapidly as before the fire.

Tests of Harris Smokeless Furnace.

For several years past Dr. J. B. Harris of 921 Fatherland street, Nashville, Tenn., has been introducing the Harris smokeless furnace to the manufacturing world. This furnace is not a smoke consumer, but is designed as an absolute combustion furnace. It is being used by a number of operators, and Dr. Harris claims that the invention will operate any plant on 35 per cent. less fuel than is now being used and without any escape of smoke from the stacks. He presents two reports of tests which will interest. One report is from Wm. L. Kann, president of the Penn-American Plate Glass Co. of Pittsburg, who writes from Alexandria, Ind., dated May 23, 1906: "I am pleased to be able to report to you that the two 60" x 16' return-tubular boilers which were installed with your furnaces are proving exceedingly satisfactory. By comparison the two boilers were identical with the new installations. Heretofore on a 12-hour run we used 34 loads of coal of 325 pounds to the load, supplying the same number of producers with the steam as we did with the two boilers with the Harris furnaces, during which time, 12 hours, we only used 29 loads of coal of 325 pounds to the load, in addition to which the new installation supplied steam for pumping water to our works, which was in excess of under the old installation. The stacks were practically free from smoke, and we think now that you would be safe in referring people here to our plant, and we now give you permission to do so if you wish. We would like to have you arrange, if you can do so, to come up here in person and advise with us as to the installations of your furnaces to our water-tube boilers." The second report is: "Harris smokeless furnace, tested by P. E. Durst, mechanical engineer, and John Norris, chemist, at the works of Lever Bros., Limited, Toronto, Canada, May 10, 1906.

Kind of Boiler Tested 200-Horse-Power Heine Water-Tube.

Hot water meter.	Lancashire boiler meter.	Pounds steam pressure.	Temperature of feed water.	Time of reading.	Pounds coal consumed.	Pounds water per pound coal evaporation.
26,540	9380	85	202	9.00		
26,639	9380	85	202	10.00		
26,716	9380	85	184	11.00		
26,300	9500	80	180	12.00		
27,000	9560	88	181	1.00		
27,110	9610	98	186	2.00		
27,220	9670	94	186	3.00		
27,330	9710	88	184	4.00		
27,440	9740	56	186	3.00	3585	33,750

"The first column represents the metered water to the whole battery, and we used the Lancashire meter in second column to show what water was going to other boilers not being tested, and then deducted from the whole in column 1. Total cubic feet of water evaporated 540×62.5 equals 33,750 pounds; total pounds coal consumed 3585, less 800 pounds ash, equals 2785 pounds. Therefore, one pound of coal evaporated 12.11 pounds of water. The stacks were practically and fairly clear of smoke all the time."

Mechanical "Trimming" a Success.

Coal shippers and vessel-owners have been looking for a number of years for some mechanical device to distribute or "trim" bulk cargo in the holds of freight-carrying vessels as rapidly as it is delivered from the piers. The present slow and expensive method of trimming by hand in order to completely fill the holds to their carrying capacity is the only feature of shipping that has not been improved upon. A new mechanical trimming device was tested last month at the piers of the Philadelphia & Reading Railroad at Port Richmond, near Philadelphia. The machine, which is composed of a round disc or wheel about six feet in diameter on which are mounted four upright vanes 18 inches high, was placed in the after-hold of the barge Pocopson. The wheel is hung from and revolves, suspended by a shaft through the hatchway, in the hold of the vessel. The shaft revolves in an adjustable hatchframe. A 15-horse-power engine is placed on the hatchframe and supplies the power through direct connection and miter gear. The coal or other piece material to be loaded falls down the chute in the regular manner into a large guide hopper, which directs it onto a revolving wheel. When it strikes the wheel it is caught by the vanes,

INDUSTRIAL NEWS OF INTEREST

Crusher Plant for Sale.

A crushing plant, with contracts taking daily output, is offered for sale by H. S. Holland, 1019 Floyd avenue, Richmond, Va.

Motor-Driven Blueprint Machine.

Mr. Kenfell Essor of New York has ordered from the Crocker-Wheeler Company of Ampere, N. J., one of its form L motors of one horse-power to drive a blueprint machine.

Time-Recording Clocks Offered.

A number of time-recording time clocks and racks in good condition are offered for sale, and inquiries addressed to Room 1610, First National Bank Building, Chicago, Ill., will bring particulars.

Furnace Property on Market.

A blast furnace with ore mines nearby and favorably located for a ready market is offered for sale. Property is located in Central New York. For details address I. A. Williams, Utica, N. Y.

Waste Breakers for Sale.

Four five-section Kitson waste-breaking machines—for canvas, duck, yarn, etc.—are offered for sale by the J. Ellwood Lee Company of Conshohocken, Pa. The machines are reported as practically new.

Wants Furniture-Factory Manager.

The promoters of a furniture factory at Lumber, S. C., want to interest a practical furniture manufacturer who will take stock in and manage the enterprise. For information address D. T. McKeithan of the city named.

Mineral and Timber Land.

A 150-acre tract of mineral and timber land in Virginia will be sold at public outcry on June 23. The property is covered with original growth timber, principally oak, and is said to be underlaid with iron, zinc and lead. Information can be obtained by addressing M. H. Tompkins, commissioner, Christiansburg, Va.

Southern Pine Timber Properties.

Manufacturers or investors who may be in the market for Southern pine are invited to investigate tracts located on the Seaboard Air Line Railway. Some 25,000,000 feet of timber with a seven-cent rate to Norfolk is offered by R. E. Prince of Raleigh, N. C. He invites inquiries for either pine or hardwood timber lands.

Cincinnati Wall Tie Co.

Purchasers of galvanized-steel wall ties are advised to note that the Cincinnati Wall Tie Co. has removed to its former location in the Thomas Building, Room 23, and correspondence can be addressed there. This company has a large plant in Cincinnati for manufacturing its galvanized-steel wall ties, and invites inquiries for estimates.

Auction of Factory Property.

Those who may be interested in factory properties in New England are asked to direct their attention to the announcement that the Cochrane Carpet Co. industrial realty in Malden, Mass., will be offered at public outcry on June 13. An illustrated catalogue giving full details, terms and conditions of sale can be obtained by addressing Messrs. J. E. Conant & Co., auctioneers in charge, Lowell, Mass.

Panama Contract for Southern Company.

Dispatches from Washington state that the South Atlantic Car & Manufacturing Co. of Savannah and Waycross, Ga., is to receive a contract for 300 flat cars to be used in the work of constructing the Panama canal. Arrangements have been completed with the canal commission by which the contract is to go to the Georgia firm. The company may get an order for 100 extra cars. The contract price is to be \$1129 for each car, making the aggregate for 400 cars \$451,600."

Mr. Harry W. Pickett's Lynchburg Office.

Southern buyers of railway equipment and supplies will be interested in the announcement that Harry W. Pickett of 1009 House Building, Pittsburg, Pa., has established a branch office in Lynchburg, Va. This office is located at 310 Krise Building, and Paul T. Buckler is in charge. Immediate attention will be given to solicitations for prices on railway supplies, equipment and kindred products.

Opportunity for Southern Investments.

An announcement of interest is made by R. A. Thompson, 318 Empire Building, Atlanta, Ga., who offers for sale 28,000 acres of coal and hardwood-timber lands in Tennessee, having a railroad frontage of six miles; a Georgia farm of 140 acres 16 miles from Atlanta, and a 36-room apartment-house located in Atlanta renting for \$3000 per year. Mr. Thompson invites correspondence concerning these and other properties.

Osborn Engineering Co. Selected.

Plans and specifications for the new bridge to be built across the Maumee river at Cherry street, Toledo, Ohio, will be prepared by the Osborn Engineering Co. of Cleveland, Ohio. This is an important contract involving a \$750,000 structure. The bridge will be 1100 feet long and 70 or 80 feet wide, consisting of reinforced-concrete arches with steel bascule spans over the navigation channel. The selection of this company is a tribute to the Osborn Engineering Co.'s reputation as a bridge builder.

Contractors' and Quarry Supplies.

An exceptional opportunity is presented to contractors and quarrymen to buy all kinds of supplies of which they are constantly in need by the sale at auction of the entire stock of the late Henry H. Meyer, who was for many years engaged in this business at 110 South Howard street, Baltimore, Md. The sale will be held on June 14, and will be positive and peremptory. Catalogues covering the entire stock may be obtained on application to Messrs. Pattison & Gahan, the auctioneers, 7 East Lexington street, Baltimore, Md. (For detailed list see advertisement.)

New Clearer Roll for Textile Mills.

Managers and superintendents of textile mills in the South as well as in other sections are advised that the Southern Bobbin, Spool & Shuttle Co. of Greensboro, N. C., is placing on the market Boyd's new patent clearer roll. This roll has been spoken of in most appreciative terms by many superintendents of cotton mills and managers of cotton factories that have installed the device. The Southern Company has obtained exclusive right to manufacture this new roll, and anticipates that its highly-merited features will create a large demand among textile manufacturers.

Sale of Tapestry Plant.

An announcement which should engage the attention of parties who contemplate an investment in an enterprise of this character is contained in the offer at public sale of the manufacturing plant of the Royal Tapestry Co. at Front Royal, Va. This plant is located 83 miles from Washington, on the Southern and Norfolk & Western railways, and includes three-story pressed-brick building, equipped for manufacturing tapestry and upholstery goods; heating and electric light plant, engine and boiler, etc. The property will be sold as a whole, and correspondence and inspection are invited. Mr. H. H. Downing of Front Royal is the trustee in charge of the sale, which will be held on the premises on June 28.

Now With Fort Wayne Company.

Mr. Frederick C. R. Spence has severed his connection with the Stanley Instrument Co., Great Barrington, Mass., and is now with the

which have a peculiar curve that tend to throw the material upward and outward. The distance and height that the material is thrown is regulated by the speed of the wheel and the direction by the feed hopper. It is claimed that the trial demonstrated that the coal could be placed in any direction desired. The larger space is filled first, and the trimming is continued until the hold is loaded with the exception of the space occupied by the machine. This is easily filled directly from the chute after taking the machine out. Some minor changes in the details of construction and a lightening of some of the needlessly heavy parts, which were built for any contingency of a first trial, are planned. The device is the invention of C. A. Turner of Norfolk, Va., and is being placed in operation by the Mechanical Loading and Trimming Corporation of that city. A number of foreign patents have been allowed.

TRADE LITERATURE.

"Everbest Magazine."

The "Everbest Magazine" for May is being circulated, and contains, beside other features, much useful information regarding things electrical. This magazine is published by the Ewing-Merkle Electric Co., 1106 Pine street, St. Louis, Mo., which deals in electrical appliances of different kinds.

Light-Draft Steamboats.

Having had exceptional opportunities to study the practical value of different classes of dependable light-draft river boats, the Marine Iron Works, Station A, Chicago, Ill., is distributing a pamphlet which describes in detail several plans for designing boats of this character. The pamphlet also contains illustrations showing a number of light-draft river boats which have been constructed from plans and specifications prepared by the Marine Iron Works and equipped with machinery and accessories manufactured by this company.

Coal-Mining by Machinery.

Aiming to manufacture a line of coal-mining machinery as broad as the requirements of the trade and to design new machines to meet new or changing conditions, the Sullivan Machinery Co., Railway Exchange Building, Chicago, Ill., has made a thorough investigation of mining needs, and offers recommendations as to the type of machine best suited to local conditions. A brief summary of the line of coal-mining machinery manufactured by this company is contained in its bulletin entitled "Coal Mining by Machinery," which is now being distributed.

Description of Hornsby-Akroyd Engine.

The De La Vergne Machine Co. of New York has just issued a new 82-page catalogue describing the mode of operation of the "Hornsby-Akroyd" oil engine and giving illustrations and short descriptions of the more recent installations of these engines. The "Hornsby-Akroyd" oil engines are very well known, there being over 14,000 of them in operation. The popularity of these engines is attributed to the extremely low cost of power, which the De La Vergne people say is from one-quarter to one-half cent per B. H. P. hour.

The Sportsman's Paradise.

"The Sportsman's Paradise" is an illustrated pamphlet which will interest people desirous of being informed regarding hunting and fishing grounds in the South. It details plans for organizing 31,000 acres of land into a hunting and fishing preserve and for boating, bathing and general resort purposes. The land is near Lake Charles, La., and D. O. Dunn of that city is promoting the proposition. The preserve will be located between Lake Charles and the Gulf of Mexico, and people who have visited that territory can imagine the possibilities for the enterprise. It is proposed to form a company with capital stock of \$150,000, and progress is reported.

Mine and Quarry.

"Mine and Quarry" is the name of a new publication which will be circulated by the Sullivan Machinery Co., Railway Exchange Building, Chicago, Ill. Its object is to familiarize its readers with the different classes of machinery manufactured by this company, and its aim will be attained by descriptions of engineering, mining and quarrying undertakings of special interest in which the various machines have been or are being employed, by mention and illustration of new machines and of improvement to existing types, and by discussion and suggestion regarding the best practice in the application, use and care of machines under different conditions. The first issue of the publication

is now being distributed, and contains timely and interesting articles on the following subjects: Rock excavations at Panama, modern methods at an Illinois mine, diamond drilling, power extension of the Chicago drainage canal, low cost of compressing air for drills, cleaving granite by compressed air, and suggestions for operation of rock drills.

The Gravity Measuring Coal Chute.

All mechanical devices depend for their success upon their operation under tried conditions, upon simplicity of construction and action, and upon their ability to withstand tests under abnormal conditions as well as during favorable periods of operation. A convincing demonstration of value can only be presented as a result of experience after the device has been in actual operation for a sufficient period to indicate its utility. Such a demonstration is claimed to have been made by nearly four years' continuous operation of the gravity measuring coal chute at various points along the Baltimore & Ohio Railroad. These coal-measuring chutes were installed for the purpose of showing the amount of coal consumed by the different locomotives along the line and also to insure less waste in handling. Some of the points claimed for the gravity coal-measuring chute by its manufacturer, the Gravity Measuring Coal Chute Co. of Richmond, Va., are steady operation under all weather conditions, with minimum expense for maintenance; simplicity in construction; by delivering a fixed tonnage to a locomotive its supply is certain as to weight and a complete check on the engine crew is established: no waste or obstruction of tracks, and the great saving in time and cost in coaling. This company will construct these plants ready for operation or furnish the mechanical parts ready to be erected, or supply complete working drawings of its device so that it can be constructed by the purchaser, and allow the right to use the device on coal docks. It issues a pamphlet detailing this patented chute.

Mr. Arthur Giesler, Hydro-Turbine Engineer.

A recent interesting announcement is that Arthur Giesler has established offices at 170 Broadway, New York, and will devote himself to his specialty—the engineering of hydro-turbine power plants and hydro-turbine pumping stations. Mr. Giesler is well known in this country and in Europe, his reputation having recently brought forth in the Electrical World of March 3 a resume of his life and work which has been reproduced in leaflet form, entitled "An Appreciation." This leaflet is extremely interesting. It tells that Mr. Giesler began his life-work in 1869 when he erected at Dirschaus, Prussia, for Professor Flink of Berlin, Flink's first reaction turbine, equipped with the Flink gate. Mr. Giesler was born at Dantzig and graduated from Von Conradi, specializing in general and hydraulic engineering. After two years of volunteer service in the Franco-Prussian War he went with G. Luther of Braunschweig, who were pioneers in hydro-turbine design. Coming to America in 1882, Mr. Giesler went with the Stilwell-Bierce & Smith-Valle Company, and was superintendent of works and chief engineer, when he resigned to engage with the Pratt Iron Works Co. Mr. Giesler has maintained a personal acquaintance with the various manufacturing establishments in Europe, and while abroad recently he examined all the important hydro-turbine installations. It was Mr. Giesler who designed the Giesler governor, which made possible the operation of street railways from water-power plants. A number of important installations for modern water-wheel practice in this country were engineered by Mr. Giesler, a notable one being that at Snoqualmie Falls, which was placed in operation last year. This is the largest single water turbine in the world, 10,000 horse-power at 260 feet head, developing as much power as the former installation of 10 impulse wheels. The engineering fraternity will look forward to seeing Mr. Giesler undertake additional important work in his special field of endeavor during the next several years.

Notice is given that the Maryland board of public works, Oswald Tilghman, secretary, will receive bids at Annapolis, Md., until noon July 6 for 1054 shares of stock of the Easton National Bank of Easton, Md.

It is stated that City Register Hooper, under authority of the finance commissioners of Baltimore, Md., has recently purchased \$300,000 of city dock loan stock for the benefit of the sinking funds.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,
Baltimore, Md., June 6.

In the Baltimore stock market during the past week United Railways issues continued active for the income bonds, which declined about two points. Trading in G.-B.-S. Brewing issues also remained brisk, with prices steady to firm. Cotton Duck 5s advanced.

In the trading United Railways incomes sold from 74½ to 72½, with last sale at 72½; the trust certificates went from 72½ to 71½, and the 4s were steady at 92½ to 92½. Consolidated Gas stock was dealt in at 83, and the 5s at 112½; Seaboard Air Line, 30; Seaboard new common at 31 to 30½; the new second preferred at 60½; Seaboard 4s from 88 to 88½; the 10-year 5s at 101½; Cotton Duck 5s from 86½ to 87½; Consolidated Cotton Duck preferred at 34. G.-B.-S. Brewing common was dealt in from 10½ to 11½; the incomes from 37½ to 40, and the income scrip at 44; the 1sts from 64 to 63.

Bank stocks sold as follows: Citizens', 28½ to 29; Merchants', 183; Old Town, 11½.

Trust and other company stocks sold thus: Mercantile Trust, 144 to 145; United States Fidelity, 125; Title Guarantee & Trust, 120; Maryland Casualty, 56.

Other securities were traded in as follows: Northern Central, 101 to 100; Western Maryland, 22; Colorado Fuel & Iron common, 57½; Houston Oil, 95½ to 83½; do, preferred, 45½ to 48½; Georgia & Alabama Consolidated 5s, 111 to 112; Wilmington & Newbern 4s, 99; Virginia Century, 95; Atlantic Coast Line half paid, 95 to 95½; Baltimore City Passenger 5s, 103½; Western Maryland 4s, 86½; North Carolina 6s, 131; Amalgamated Copper, 107½; Atlantic Coast Line new 4s, certificates, 91 to 92; Anacostia & Potomac 5s, 104½ to 105; Knoxville Traction 5s, 106½; Suffol & Carolina 5s, 101½; Atlantic Coast Line of Connecticut, 360; Alabama Consolidated Coal & Iron preferred, 93 to 94; Atlantic Coast Line of Connecticut 4s, certificates, 91; Norfolk Railway & Light 5s, 99; Alabama Consolidated Coal & Iron 5s, 91½ to 92; Augusta Railway & Electric 5s, 104; Baltimore, Sparrows Point & Chesapeake 4½s, 97½; Maryland & Pennsylvania 4s, 94½; Coal & Iron Railway 5s, 105½; Georgia, Carolina & Northern 5s, 111½; Baltimore City 4s, 1926, 109; do, 31½s, 1928, 105 to 104½; do, do, 1930, 105 to 105½; do, do, 1940, 105 to 105½; Georgia Southern & Florida 1st preferred, 97½; do, 5s, 113; Norfolk Railway & Light stock, 19; Charleston Consolidated Electric 5s, 95 to 95½; City & Suburban (Washington) 5s, 105½; Maryland & Pennsylvania incomes, 68; Metropolitan Street Railway (Washington) 5s, 114½; Richmond & Danville 5s, 111½; Petersburg 5s, 125½; A. C. L. Con. 4s, 100½; Maryland & Pennsylvania Terminal 5s, 103½.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended June 6, 1906.

Railroad Stocks. Par. Bid. Asked.

Atlanta & Charlotte.....	100	197½	200
Atlantic Coast Line.....	100	149	
Atlantic Coast Line of Conn.....	100	35½	360
Georgia Sou. & Fla. 1st Pref.....	97	99	
Georgia Sou. & Fla. 2d Pref.....	100	82	86
Maryland & Pennsylvania.....	100	27½	29
Norfolk Railway & Light.....	25	18	
Seaboard Company Common.....	100	30	31
Seaboard Railway Preferred.....	100	55½	

Seaboard Company 2d Pref.....

United Railways & Elec. Co.....

Western Maryland.....

Bank Stocks.

Citizens' National Bank.....

Commercial & Far. Nat. Bank.....

Com. & Far. Nat. Bk., Blue Cts.....

Drovers & Mech. Nat. Bank.....

Farmers & Mer. Nat. Bank.....

German-American Bank.....

German Bank.....

Maryland National Bank.....

Mercantile National Bank.....

National Bank of Baltimore.....

National Bank of Commerce.....

National Howard Bank.....

National Marine Bank.....

National Mechanics' Bank.....

National Union Bank of Md.....

Old Town Bank.....

Western National Bank.....

Trust, Fidelity and Casualty Stocks.

American Bonding & Trust.....

Continental Trust.....

Maryland Casualty.....

Maryland Trust.....

Maryland Trust Pref.....

Mercantile Trust & Deposit.....

Union Trust.....

Railroad Bonds.

Albany & Northern 5s, 1916.....

Atlantic Coast Line 1st Con. 4s, 1952.....

Carolina Central 4s, 1949.....

Char. Col. & Aug. 2d 19, 1910.....

Coal & Iron Railway 5s, 1920.....

Georgia & Alabama 5s, 1945.....

Georgia, Car. & North. 1st 5s, 1929.....

Georgia Pacific 1st 6s, 1922.....

Georgia South. & Fla. 1st 5s, 1945.....

Maryland & Pennsylvania 4s, 1951.....

Petersburg, Class A 5s, 1926.....

Petersburg, Class B 6s, 1926.....

Piedmont & Cum. 1st 5s, 1911.....

Potomac Valley 1st 5s, 1941.....

Raleigh & Augusta 1st 6s, 1926.....

Richmond & Danville Gold 6s, 1915.....

Seaboard Air Line 4s, 1950.....

Seaboard Air Line 5s, 1910.....

Seaboard Air Line 5s, 3-year.....

Suffolk & Carolina 5s, 1952.....

Virginia Midland 2d 6s, 1911.....

Virginia Midland 3d 6s, 1916.....

Virginia Midland 4th 3-5s, 1921.....

Virginia Midland 5th 5s, 1926.....

Western Maryland new 4s, 1952.....

West. North Carolina Con. 6s, 1914.....

West Virginia Central 1st 6s, 1911.....

Wilmington, Col. & Aug. 6s, 1910.....

Wilmington & Wel. Gold 5s, 1935.....

Street Railway Bonds.

Anacostia & Potomac 5s, 1949.....

Augusta Rwy. & Elec. 5s, 1940.....

Baltimore City Passenger 5s, 1911.....

Central Ry. Con. 5s (Balto.), 1932.....

Central Ry. Ext. 5s (Balto.), 1932.....

Charleston City Railway 5s, 1923.....

Charleston Con. Electric 5s, 1950.....

City & Suburban 5s (Balto.), 1922.....

City & Suburban 5s (Wash.), 1948.....

Knoxville Traction 1st 5s, 1928.....

Lake Roland Elev. 5s (Balto.), 1942.....

Lexington Railway 1st 5s, 1919.....

Macon Rwy. & Lt. 1st Con. 5s, 1953.....

Metropolitan 5s (Wash.), 1925.....

Newport News & Old Pt. 5s, 1938.....

Norfolk Railway & Light 5s.....

Norfolk Street Railway 5s, 1914.....

North Baltimore 5s, 1912.....

United Railways 1st 4s, 1949.....

United Railways Inc. 4s, 1949.....

Miscellaneous Bonds.

Alabama Consol. Coal & Iron 5s.....

Consolidated Gas 6s, 1910.....

Consolidated Gas 4½s, Cts.....

G. B. & S. Brewing 1st 3-4s.....

G. B. & S. Brewing 2d Incomes.....

Maryland Telephone 5s.....

Mt. V. & Woodly's Cot. Duck 5s.....

United Elec. Light & Power 4½s.....

United Elec. Light & Power 5s.....

United Elec. Light & Power 5½s.....

Mills Mfg. Co. (S. C.) Pfd.	100	105
Monaghan Mills (S. C.)	90	...
Monarch Mills (S. C.)	114	...
Newberry Cotton Mills (S. C.)	115	...
Norris Cotton Mills (S. C.)	88	...
Odell Mfg. Co. (N. C.)	80	91
Olympia Cot. Mills. (S. C.) Pref.	103	104
Orr Cotton Mills (S. C.)	179	104
Pacolet Mfg. Co. (S. C.) Pfd.	102	104
Pelzer Mfg. Co. (S. C.)	169	173
Piedmont Mfg. Co. (S. C.)	169	171
Poe Mfg. Co. (S. C.)	125	129
Raleigh Cotton Mills (N. C.)	99	104
Richland Cot. Mills (S. C.) Pfd.	51	56
Ronoke Mills (N. C.)	144	150
Saxon Mills (S. C.)	100	104
Sibley Mfg. Co. (Ga.)	64	68
Spartan Mills (S. C.)	140	151
Southern Cotton Mills (N. C.)	80	...
Springsteel Mills (S. C.)	100	...
Trion Mfg. Co. (Ga.)	131	142
Tucapau Mills (S. C.)	160	165
Victor Mfg. Co. (S. C.)	115	120
Warren Mfg. Co. (S. C.)	97	99
Warren Mfg. Co. (S. C.) Pfd.	105	...
Washington Mills (Va.)	18	26
Washington Mills (Va.) Pfd.	95	99
Whitney Mfg. Co. (S. C.)	143	150
Wiscasset Mills (N. C.)	122	135
Woodruff Cotton Mills (S. C.)	105	106

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending June 4.

	Bid	Asked
Abbeville Cotton Mills (S. C.)	96	98
Aetna Cotton Mills (S. C.) Pfd.	70	...
Aiken Mfg. Co. (S. C.)	85	89
American Spinning Co. (S. C.)	118	...
Anderson Cotton Mills (S. C.)	103	106
Arcadia Mills (S. C.)	89	93
Arkwright Cotton Mills (S. C.)	120	...
Augusta Factory (Ga.)	80	85
Avondale Mills (Ala.)	100	...
Belton Mills (S. C.)	108	110
Bibb Mfg. Co. (Ga.)	115	...
Brandon Mills (S. C.)	109	112
Brogan Mills (S. C.)	77	80
Cabarrus Cotton Mills (N. C.)	120	...
Chadwick Mfg. Co. (N. C.) Pfd.	103	...
Chiquila Mfg. Co. (S. C.)	95	100
Clifton Mfg. Co. (S. C.)	122	128
Clifton Mfg. Co. (S. C.) Pfd.	103	...
Clinton Cotton Mills (S. C.)	140	145
Columbus Mfg. Co. (Ga.)	94	97
Courtenay Mfg. Co. (S. C.)	100	103
Dallas Mfg. Co. (S. C.)	89	95
Darlington Mfg. Co. (S. C.)	59	63
D. E. Converse Co. (S. C.)	115	...
Eagle & Phenix Mills (Ga.)	120	...
Easley Cotton Mills (S. C.)	130	135
Enoree Mfg. Co. (S. C.)	85	90
Enoree Mfg. Co. (S. C.) Pfd.	100	...
Enterprise Mfg. Co. (Ga.)	82	90
Exposition Cotton Mills (Ga.)	174	200
Gaffney Mfg. Co. (S. C.)	87	93
Gainesville Cotton Mills (Ga.)	28	...
Glenwood Cotton Mills (S. C.)	102	106
Gluck Mills (S. C.)	92	97
Granby Cot. Mills (S. C.) 1st Pfd.	50	...
Graniteville Mfg. Co. (S. C.)	157	...
Greenwood Cotton Mills (S. C.)	95	...
Grendel Mills (S. C.)	115	...
Hartsville Cotton Mill (S. C.)	92	95
Henrietta Mills (N. C.)	200	...
Inman Mills (S. C.)	94	97
King Mfg. Co. J. P. (Ga.)	97	103
Lancaster Cotton Mills (S. C.)	100	106
Lancaster Cot. Mills (S. C.) Pfd.	36	39
Langley Mfg. Co. (S. C.)	92	96
Laurens Mills (S. C.)	172	...
Limestone Mills (S. C.)	104	...
Lockhart Mills (S. C.)	99	103
Lockhart Mills (S. C.) Pfd.	101	...
Loray Cotton Mills (N. C.) Pfd.	85	90
Louise Mills (N. C.)	94	...
Louise Mills (N. C.) Pfd.	102	...
Marlboro Cotton Mills (S. C.)	67	75
Mayo Mills (N. C.)	150	200
Mills Mfg. Co. (S. C.)	100	...
Mills Mfg. Co. (S. C.) Pfd.	99	101
Mollohon Mfg. Co. (S. C.)	90	95
Monaghan Mills (S. C.)	99	103
Monarch Cotton Mills (S. C.)	87	...
Newberry Cotton Mills (S. C.)	115	...
Ninety Six Cotton Mills (S. C.)	92	...
Norris Cotton Mills (S. C.)	106	...
Odell Mfg. Co. (N. C.)	90	...
Orangeburg Mfg. Co. (S. C.) Pfd.	80	...
Orr Cotton Mills (S. C.)	101	106
Pacolet Mfg. Co. (S. C.)	182	...
Pacolet Mfg. Co. (S. C.) Pfd.	102	104
Pelzer Mfg. Co. (S. C.)	170	173
Piedmont Mfg. Co. (S. C.)	170	175
Poe Mfg. Co. F. W. (S. C.)	125	130
Raleigh Cotton Mills (N. C.)	60	100
Richland Cotton Mills (S. C.) Pfd.	102	...
Roanoke Mills (N. C.)	118	...
Saxon Mills (S. C.)	102	104
Sibley Mfg. Co. (Ga.)	58	63
Southern Cotton Mills (N. C.)	86	...
Spartan Mills (S. C.)	145	...
Springsteel Mills (S. C.)	100	...
Trion Mfg. Co. (Ga.)	132	140
Tucapau Mills (S. C.)	159	...
Victor Mfg. Co. (S. C.)	115	...
Warren Mfg. Co. (S. C.)	95	102
Warren Mfg. Co. (S. C.) Pfd.	107	...
Washington Mills (Va.)	17	22
Washington Mills (Va.) Pfd.	93	96
Whitney Mfg. Co. (S. C.)	146	...
Wiscasset Mills (N. C.)	119	...
Woodruff Cotton Mills (S. C.)	107	125

Offers 6 Per Cent. Stock.

The United Milling & Grain Co. of Topeka, Kan., is offering to the public the unsold portion of its 6 per cent. cumulative stock at par, \$100 per share. The capital stock of the company is \$300,000, consisting of \$150,000 of 6 per cent. preferred and \$150,000 of common. The stock is registered by the International Savings & Trust Co. of Pittsburgh, Pa. The business of the milling company is to own and operate grain elevators and flour mills, and it announces the completion of a mill of 1200 barrels daily capacity. Its 350,000-bushel terminal elevator is also located on the three trunk lines in Kansas.

The company will also have its own grain elevators in the great wheat belt. It promises honest and intelligent management, and that the dividends will be all the net earnings. The officers are H. Parker, chairman and treasurer; W. L. Taylor, president; J. B. M. Wilcox, secretary and assistant treasurer; W. J. Raymond, assistant secretary. The company also announces that it has no bonded indebtedness. Further particulars can be obtained from Henry Cohen & Co., bankers, and James Brunton, fiscal agents, 74 Broadway, New York.

Bank Reports.

The Gulf National Bank of Beaumont, Texas, reports April 6 loans and discounts, \$838,100; cash and sight exchange, \$710,315; capital stock, \$150,000; surplus fund, \$75,000; undivided profits, \$17,252; deposits, \$1,352,902; total resources, \$1,645,245. A. L. Williams is president; W. B. Dunlap, T. S. Reed and R. A. Greer, vice-presidents; J. L. Cunningham, cashier, and P. B. Doty, assistant cashier.

New Corporations.

A new bank is reported being organized at Paincourtville, La.

Press reports state that a bank is to be established at North Birmingham, Ala.

The First State Bank of Marquez, Texas, is reported to have opened for business.

Mr. Edgar L. Magness of Nashville is reported to be organizing a bank at Attalla, Ala.

The Fidelity Trust Co. of Tulsa, I. T., has been organized with \$50,000 capital. J. M. Hall is president and R. D. Fuller secretary.

The Citizens' Bank of Raleigh, W. Va., has elected the following officers: John Lilly, president; Milton Curtis, vice-president, and E. P. Stroman, cashier.

The Fayette County National Bank of Fayetteville, W. Va., has been approved; capital \$50,000. The organizers are A. W. Hamilton, J. S. Hill and others.

The Merchants and Farmers' Bank of Garysburg, N. C., has been chartered with \$7500 capital by A. J. Ellis, J. B. Collier, R. H. Joyner of Garysburg and others.

The Pitts Banking Co. of Pitts, Ga., capital \$25,000, has been granted a charter. The incorporators are W. B. Green, L. C. Titshaw, Gray Chandler and others.

Articles of incorporation for the Hiller Investment Co., capital \$20,000, have been filed at Atlanta, Ga., by Henry Hiller, William Hurd Hillyer and Shaler L. Hillyer.

The First National Bank of Rule, Texas, has been organized with \$30,000 capital. J. W. Kelly is president; F. G. Alexander, vice-president, and M. E. Manning, cashier.

The Florence Building and Loan Association of Florence, S. C., capital \$250,000, is chartered. W. R. Barringer is president, and C. H. Barringer, secretary and treasurer.

The Burton State Bank of Burton, Texas, has begun business with C. W. Homeyer, president; Thomas Watson, vice-president, and I. N. Carmean, second vice-president.

The Grand Avenue Investment Co. of St. Louis, Mo., capital \$50,000, has been incorporated by John Sheehan, Jr., Anne E. Loler, John and Patrick Sheehan and James V. McCann.

The First National Bank of Dickens, Texas, has been approved; capital \$25,000. The organizers are R. D. Shields, W. A. Wilkinson, T. H. Gilmore, H. P. Cole, W. L. Hyatt.

The Federal Permanent Building Association, capital \$100,000, has been incorporated at Baltimore, Md., by Max H. Quitt, Louis K. Henninghausen, Percy C.

Henninghausen, F. Henry Maisch and Louis Huether, Jr.

The First National Bank of Olustee, O. T., capital \$25,000, has been approved. The organizers are J. M. Norton, H. Mathewson, S. S. Noble, J. W. Edwards and W. B. Edwards.

The First National Bank of Waurika, O. T., capital \$25,000, has been approved. The organizers are H. B. Johnson, Chickasha, I. T.; R. L. Gibson, E. B. Ellis and T. B. and E. J. Kelly.

The Citizens' Bank of Paint Rock, Texas, has been approved; capital \$50,000. The organizers are C. A. Doose, A. A. Hartgrove, W. A. Norman, J. W. Norman and F. W. Winkel.

The Citizens' Bank of Beckley, W. Va., recently incorporated with \$100,000 capital, has elected the following officers: John Lilly, president; Milton Curtis, vice-president, and E. P. Stroman, cashier.

A new bank with \$25,000 capital is to be established at Davis, I. T. The Davis-Turner Falls Railroad Co. donated the site for the bank, and it is said several directors of the company are interested.

The Mozart Building and Loan Association has been incorporated at Baltimore, Md., with \$520,000 capital, by John A. Winfelder, Albert A. Mogge, Robt. J. Vollmer, Henry Valentine and Wm. J. Garrett.

The Sheffield Trust Co. of Sheffield, Ala., has filed application for a charter; capital \$100,000. The officers are Henry Parsons, president; Wm. S. Hatch, vice-president, and U. G. Jones, secretary and treasurer.

The People's National Bank of Brunswick, Md., has been authorized to begin business with \$25,000 capital. C. H. Hogan is president; Howard Marvin Jones, vice-president, and William P. McComas, cashier.

The Third District Savings, Banking & Trust Co. of New Orleans, La., has filed its charter; capital \$100,000. The incorporators are E. J. Leonhard, president; P. Forschler, Louis Kientz and R. Range lot, vice-presidents.

The Bank of Rowlesburg at Rowlesburg, W. Va., authorized capital \$50,000, has been granted a charter. The incorporators are E. M. Carver, U. G. Moyerd, L. R. Snodgrass of Huntsville, W. C. Hooten and F. M. Fogle.

The Palacios State Bank of Palacios, Texas, has been incorporated with \$10,000 capital by P. A. Elder, C. J. Wildman, C. Doss of Palacios, C. Burns of Bay City, Texas; William Williamson of Champaign, Ill.; D. C. Ritchie of Jennings, La. The Farmers and Merchants' Bank of Butler, Ga., capital \$25,000, has made application for a charter. The incorporators are M. T. Chapman, I. F. Peebles, W. B. Wilson, H. A. Childs, W. E. Steed, A. D. Chapman, W. W. Edwards, Wayne Riley and C. E. Benns.

The Texas Savings Bank of Houston, Texas, is reported to have begun business at Fannin and Texas avenues. The officers are O. S. Cummings, president; John G. Tod and E. R. Johnson, vice-presidents; E. M. Parrish, cashier, and O. K. Caldwell, assistant cashier.

The Summertown Banking Co. of Summertown, Tenn., capital \$10,000, has been incorporated by G. W. Gray, A. J. Gould, J. H. Pickard, H. L. Richardson, A. A. Patterson, Samuel Gardner, W. H. Harris, J. N. Cressway, M. J. Craig, J. R. Martin and C. A. Hammond.

The Bank of Bristol has been incorporated at Bristol, Va., with \$100,000 capital. The officers are Patrick Hagan, president, Dunnington; T. C. Adams, first vice-

president; G. E. Nichels, second vice-president; Charles F. Hagan, third vice-president; W. W. Wood, all of Bristol.

The Cumberland Corporation of Cumberland, Va., has been chartered with \$40,000 capital to deal in stocks and bonds. The directors are H. S. Trout, president, and James P. Woods, vice-president, both of Roanoke, and Charles I. Wade of Christiansburg, secretary and treasurer.

The Bank of Thomaston at Thomaston, Ala., has filed articles of incorporation; capital \$25,000. The incorporators are N. S. Curtis, H. Morton Butler, C. B. Thomas, F. R. Hollis, C. S. Golden, B. E. Mason, Joseph P. Hollis, J. J. Miller, W. J. Hearn, J. E. Parker and D. W. McNeil.

The First State Bank of Terrell, Texas, has been organized with \$100,000 capital. The directors are John S. Turner, J. S. Grinnan, E. H. R. Green, Walter O. Siller, O. F. Walton, J. C. Fields, F. M. Barton, L. E. Griffith, Jr., and W. H. Neely, all of Terrell, and W. A. Brooks of Forney, Texas.

The Bank of Reevesville, recently chartered at Reevesville, S. C., with \$15,000 capital, has elected the following officers: Dr. A. R. Johnston, president; I. B. Kiser, vice-president; J. M. Mars, cashier; E. J. Dennis; directors, Dr. A. R. Johnston, Dr. J. P. Johnston, I. B. Kiser, D. D. Kiser, J. M. Mars.

The Chickasha National Bank has begun business at Chickasha, I. T., with \$100,000 capital. The directors are T. H. Dwyer, president; D. H. Sigmon, vice-president, and J. N. Cooke, cashier; W. H. Wadsworth, C. H. Russell and H. B. Spencer, all of Chickasha, and George R. Bleeler of Ninekah, I. T.

The Farmers' Banking Co. of Union, W. Va., capital \$25,000, has been granted a charter. The directors are W. G. Caperon, president, and John L. Trail, vice-president; J. T. Nickell, A. E. Johnson, S. S. Steele, R. W. Adair, A. C. Houston, M. B. Dunn, O. L. Miller, S. C. Peters, J. C. Reed, J. T. Black, George Dransfield, C. P. Nickell and S. Y. Symns.

The new Perpetual Building and Loan Association of Anderson, S. C., has organized by electing the following directors: President, R. E. Ligon; vice-president, J. E. Barton; secretary and treasurer, P. E. Clinkscales; attorney, G. C. Sullivan; W. R. Osborne, W. H. Harrison, W. L. Brissey, Calhoun Harris and D. C. Brown. Business is to begin immediately.

The Chippewa Bank of St. Louis, Mo., capital \$100,000, has filed articles of incorporation. The stockholders are Joseph Scarr, Sam B. Jeffries, John T. Nolde, Gottlieb Eyerman, H. Ruecking, Richard Bartholdi, Henry Niemann, George Korte, Charles Loopfe, Henry W. Schulz, F. L. Overberg, Louis Hunt, L. F. Padberg, John R. Harkins and W. L. Wright, Vandalia, Mo.

The Bank of Soperton at Soperton, Ga., has been granted a charter; capital \$25,000. The incorporators are J. F. Cook, W. F. Luckett and T. W. Booth of Telfare, B. A. Moseley, W. R. Moseley, F. V. Newman, W. H. Fowler, J. B. O'Connor, W. D. Martin, Charles Hamilton and W. C. Furtile, all of Montgomery county; N. L. Gillis and R. L. Gillis of Emanuel, and Jack Williamson of Toombs county.

The Citizens' Banking Co. of Baxley, Ga., capital \$50,000, has been granted a charter. The organizers are M. B. Johnson, W. W. Graham, A. Cameron, L. W. Spell, E. E. Mims and others. The officers are W. R. Beach of Waycross, president; H. C. Gilmore, first vice-president; W. W. Graham, second vice-president; directors, E. E. Mims, M. B. Johnson, J. A. Bell, J. H. Carter, L. W. Spell, P. C. Gilmore and W. W. Graham.

The Home Insurance Co. of McAlester, I. T., has been organized with \$200,000

capital and articles of incorporation filed. The directors are Jas. F. George of Dardanelle, Ark., president; S. R. George of Magazine, Ark., vice-president; A. F. George of South McAlester, secretary and treasurer; W. J. George, Magazine, Ark.; A. L. George, South McAlester, I. T.; Dr. L. J. George and Dr. L. J. McCarty of Centerville, Ark.

Articles of incorporation for the Merchants and Planters' Bank of Newark, Ark., capital \$10,000, have been filed by W. F. Magness, C. J. Magness, W. C. Mims, N. A. Winston, J. W. Sick, Jess T. Tharp, F. C. Hoyt, H. E. Hawthorn, E. E. Allen, R. M. Galloway, O. F. Craig, Newark Grocery Co., W. F. Troy, J. P. Dunn, J. C. Nuckles, F. T. Edwards, T. M. Waldrup, W. D. Magness, W. J. Waldrup, D. C. Cane and J. P. Love.

The People's Savings Bank of Anderson, S. C., capital \$25,000, has elected the following officers: J. J. Fretwell, president; L. R. Watson, vice-president; J. N. Bleckley, cashier; Raymond Fretwell and Frank Shirley, assistant cashiers; directors, J. J. Fretwell, L. R. Watson, W. H. Tucker, W. C. Fant, T. M. McCarley, W. J. McClure, all of Anderson; E. P. Gambrell of Belton, C. C. Jones of Starr and Vance Cooley of Williamston.

The Beaumont Building and Loan Association of Beaumont, Texas, capital \$150,000, has elected the following officers: President, Leon R. Levy; vice-president, Guy W. Junker; second vice-president, R. M. Mothner; secretary and treasurer, W. L. Browning; attorney, A. T. Watts; directors, L. R. Levy, Guy W. Junker, R. M. Mothner, W. W. Cunningham, A. L. Williams, B. R. Norvell, A. B. Brock, S. G. Burnett, Holmes Duke, James Wellman, I. D. Roberts, John L. Keith and E. C. Ogden.

St. Louis capitalists are reported to have opened a bank at Chaffee, Mo., those interested being August Schlaflly, Joseph F. Tumulty, Ernest J. Russell, Joseph Freund, Crystal City; Judge William B. Wright, Effingham, Ill.; James W. Black, William B. Wells, Frank Mesker, J. V. Holt, St. Joseph, Mo.; Edward Long, Rolla, Mo.; L. F. Parker, E. J. Troy, C. R. H. Davis, Thomas C. Young, F. E. Clark, Crystal City, Mo.; George H. Le Crone, Effingham, Ill.; Isaac T. Cook, James F. Cook, Jr., George V. Mechler, Effingham, Ill.; C. P. Strobach, Rolla, Mo.; C. E. French, J. S. Garvie and H. H. Parker.

The Citizens' Savings Bank of Washington, D. C., has begun business at 1406 New York avenue, in the Bond Building. The officers and directors are James A. Sample, president; Rignald W. Beall, vice-president; Oscar J. Ricketts, second vice-president; John O. Johnson, third vice-president; John Quinn, fourth vice-president; Harry P. Huddleson, secretary; Bestor R. Walters, cashier; W. B. Acker, Philip G. Affleck, Joseph Auerbach, William E. Abbott, Robert Armour, Sidney L. Besseliere, Walter W. Bennett, Walter W. Bowie, A. P. Crenshaw, Newton H. Clark, John H. Corning, James E. Jones, W. H. Martin, John Quinn, Charles G. Robinson, Joseph F. Ralph, John Speed Smith and J. Martin Scranton.

New Securities.

Ashland, Ky.—The Merchants' Bank & Trust Co. has purchased at a premium the \$36,000 of 6 per cent. 4-10-year street-improvement bonds.

Augusta, Ga.—The city is reported to have sold at 103.56 the \$35,000 of 4 per cent. 30-year refunding bonds.

Brooksville, Miss.—A resolution has been passed by the board of aldermen to sell \$5000 of 5-20-year artesian-well bonds. J. N. McMorris is town clerk.

Cairo, Ga.—Bids will be received by R. L. Van Landingham, mayor, until 8 P. M.

June 6 for \$10,000 of 5 per cent. 10-year water-works, electric-light-extension and town-hall bonds.

Cape Girardeau, Mo.—Bids will be received until June 20 by the board of education, Wm. H. Huters, secretary, for \$20,000 of 4½ per cent. 5-20-year school bonds.

Clarksville, Tenn.—Messrs. Seasongood & Mayer of Cincinnati have been awarded at par the \$10,000 of 4 per cent. 30-year water-works improvement bonds.

Cordele, Ga.—Press reports state that about \$50,000 of public-improvement bonds will probably be issued.

Davis, I. T.—It is reported that arrangements are to be made to issue \$20,000 of school bonds.

Dallas, Texas.—It is reported that the school board is considering the question of disposing of \$200,000 of school bonds.

St. Louis, Mo.—The election June 12 is to decide the question of issuing \$1,500,000 of sewer bonds.

Faxon, O. T.—An issue of \$5000 of school-building bonds has been authorized.

Girard, Ga.—An election is to be held to vote on the question of issuing \$10,000 of building bonds.

Goodwater, Ala.—No sale was made on May 23 for the \$10,000 of 5 per cent. 20-year electric-light bonds, and bids for same will again be received by J. C. Carmichael, mayor, until 8 P. M. June 15.

Greenville, Texas.—An issue of \$13,000 of 4½ per cent. 30-year water-works bonds has been approved and registered.

Guthrie, Texas.—It is reported that H. N. Swain has been awarded the \$4000 of 5 per cent. 5-10-year King county court-house bonds.

Hammond, La.—It is stated that an election is to be held June 26 to vote on the question of issuing \$30,000 of refunding and \$10,000 of drainage bonds.

Hubbard City, Texas.—The Union Central Light & Ice Co. of Hubbard City, which will issue \$25,000 of 6 per cent. coupon bonds, has awarded the contract for engraving and lithographing the bonds to the Aug. Gast Bank Note & Lithographing Co. of St. Louis, Mo.

Jackson, Ga.—The Robinson-Humphrey Company has purchased at a premium of \$200 and all expenses, the \$16,000 of 5 per cent. additional water-works and electric-light-plant bonds.

Kahoka, Mo.—The Kahoka Savings Bank of Kahoka has been awarded at par the \$4200 of 5 per cent. school bonds.

Lake City, Fla.—Messrs. Farson, Son & Co. of Chicago have purchased at 102.50 the \$10,000 of 5 per cent. school bonds.

Leakesville, N. C.—Bids will be received by C. B. Keesee until noon June 8 for \$10,000 of 5 per cent. 40-year paving bonds.

Lumpkin, Ga.—An ordinance has been passed calling an election to decide the question of issuing schoolhouse and electric-light bonds.

Madill, I. T.—On June 19 an election is to be held to vote on the question of issuing \$40,000 of water-works bonds.

Monroe, Mo.—The \$18,000 of 4 per cent. 20-year bonds have been sold at par as follows: The Monroe City Bank \$3000 and the Wm. R. Compton Bond & Mortgage Co. of Macon \$15,000.

Mooresville, N. C.—Messrs. F. M. Stafford & Co. of Chattanooga are said to have purchased at 102.25 the \$10,000 of 5 per cent. 30-year school bonds.

Natchez, Miss.—Bids will be received by John F. Jenkins, chancery clerk, until 1 P. M. June 4 for \$92,000 of 4½ per cent. refunding railroad aid bonds. These bonds were recently reported sold to a local bank.

New Orleans, La.—A bill has been introduced in the Louisiana legislature to authorize the city of New Orleans to issue not more than \$200,000 of school teachers'

salary bonds, redeemable at any time from 1917 to 1927 and bearing interest at 4 per cent.

North Wilkesboro, N. C.—An issue of \$20,000 of street-improvement bonds has been authorized by the town council.

Osceola, Ark.—The city has voted in favor of issuing school bonds.

Palestine, Texas.—Two series of 4½ per cent. 20-40-year school bonds, one for \$10,500 and the other for \$9500, have been approved and registered.

Perry, Fla.—An issue of \$25,000 of water-works bonds is reported sold.

Perry, O. T.—Messrs. John Nuveen & Co. of Chicago have been awarded at 100.02 the \$30,000 of 5½ per cent. 21-30-year water-works bonds.

Royse City, Texas.—The city has voted in favor of issuing \$13,000 of school-building bonds.

Shawnee, O. T.—Messrs. Mason, Lewis & Co. of Chicago are reported to have been awarded at 106.55 the \$15,000 of 30-year school-building bonds.

Simpsonville, S. C.—The city has voted to issue \$4500 of school-building bonds.

Springfield, Mo.—The Union National Bank of Springfield has been awarded at 100.008 the \$60,000 of 4 per cent. school-building bonds.

Spring Hope, N. C.—Bids will be received by E. C. May, town clerk, Spring Hope, or S. A. Woodard, town attorney, Wilson, N. C., until June 26 for \$10,000 of 6 per cent. 20-year bonds.

St. Charles, Mo.—The \$80,000 of 4 per cent. 5-20-year sewer bonds have been purchased at 100.03 by the First National Bank of St. Charles.

St. Matthews, S. C.—All bids received June 1 for the \$20,000 of 5 per cent. 20-40-year water-works bonds were rejected, and bids for same will again be received until noon July 2. Address Leonidas Cain, secretary board of public works.

Thomasville, Ga.—On July 3 an election is to be held to vote on the question of issuing \$30,000 of paving bonds.

Tuskegee, Ala.—The \$20,000 of sewerage bonds offered May 15 were not sold.

Vienna, Ga.—Bids will be received until June 9, inclusive, by B. F. Forbes, mayor and chairman bond committee, for \$20,000 of 5 per cent. 11-year water-works improvement bonds.

Waynesboro, Ga.—The election to vote on the question of issuing \$60,000 of electric-light, water-works and sewerage bonds is to be held June 14. W. G. Green is treasurer.

Wanette, O. T.—Bids will be received by A. B. Honnold, city attorney and clerk pro tem., until 10 A. M. June 9 for \$20,000 of 6 per cent. 30-year water-works bonds.

Waverross, Ga.—Hon. P. M. Heigh, mayor, confirms the report that an election is to be held in July to vote on the question of issuing \$35,000 of water and sewerage, \$40,000 of street and \$25,000 of school bonds.

West Palm Beach, Fla.—Bids will be received on June 5 by A. K. Dearborn, clerk of the board of county commissioners, for \$20,000 of 5 per cent. school-building bonds.

Wheeling, W. Va.—An election is to be held to vote on the question of issuing \$35,000 of building bonds.

Wheeling, W. Va.—The city council has adopted a resolution to call an election to decide the question of issuing \$500,000 of water-works bonds.

Financial Notes.

Sutton county, Texas, has, it is reported, redeemed \$1000 of courthouse bonds.

Dallas county, Texas, is said to have redeemed \$25,000 of courthouse funding bonds.

It is said that the American Central Insurance Co. of St. Louis, Mo., proposes

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to increase its capital from \$1,000,000 to \$3,000,000.

Notice is given that on July 1 at the Lynchburg Trust and Savings Bank, Lynchburg, Va., 25 bonds of the Lynchburg Cotton Mill Co. will be redeemed.

The Erick State Bank of Erick, O. T., is reported to have been purchased by L. A. Wilson, president of the Bank of Sayre, O. T. It is said Mr. Wilson will be president.

The Bank of Lafayette at Lafayette, La., which has a capital of \$50,000, will occupy its new building about June 1. C. O. Mouton is president, and J. J. Davidson, cashier.

[For Additional Financial News, See Page 46.]

